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Calendar - History - Rome.

ORIGINES KALENDARIÆ ITALICÆ,

NUNDINAL CALENDARS OF ANCIENT ITALY,
NUNDINAL CALENDAR OF ROMULUS,
CALENDAR OF NUMA POMPILIUS,
CALENDAR OF THE DECEMVIRS,
IRREGULAR ROMAN CALENDAR,
AND
JULIAN CORRECTION.

TABLES OF THE ROMAN CALENDAR,

FROM

U. C. 4 OF VARRO B. C. 750 TO U. C. 1108 A. D. 355.

BY

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FELLOW OF CORPUS CHRISTI COLLEGE, OXFORD.

IN FOUR VOLUMES.

VOLUME I.

OXFORD:
AT THE UNIVERSITY PRESS.
M.DCCC.LIV.

AS
OCT 13 1877
NEW-YORK

ORIGINES KALENDARIÆ ITALICÆ.

PRELIMINARY ADDRESS.

THE following Work, entitled Origines Kalendariæ Italicæ, is a continuation of the Fasti Catholici and Origines Kalendariæ, lately published at the University Press; and yet, as a particular and integral branch of the argument of that work in general, it lays claim to the name of a distinct and independent production. The subject of which it treats, (the Calendars of ancient Italy, beginning with the Nundinal Correction of the Primitive Calendar, and ending with the Julian Correction of the Roman,) is eminently qualified not only to connect it with the general argument of the Origines, which it takes up and prosecutes in a manner peculiar to itself, but to detach it also from every thing of the same kind which has yet preceded it, or may hereafter follow it; and to render it entire and complete in itself.

The Calendars of ancient Italy, in the most comprehensive sense of the name, would include the Calendars of the Greek colonies, planted at different times in Italy; the civil Calendars of Magna Græcia, in contradistinction to those of Græcia Proper, and to those of the Greek settlements in any other quarter. Not indeed that even the Calendars of the Greek colonists any where were different in general from those of the mother country, or that either of them at first were distinct from the Primitive Equable Calendar of all mankind; or that the Corrections of this Primitive Calendar among the Greeks abroad were prior in the order of time to those which were made at home, or different from them in any essential respect. On the contrary, though the history of such Corrections in Magna Græcia in particular, from the want of data at present, is confessedly one of the most obscure and uncertain parts of such a subject as that of these Origines Kalendariæ, yet as far as our information concerning them extends, and as far as we are enabled to judge of them from testimony, or from any facts which are still upon record, there is every reason to conclude that all the Corrections of the Primitive solar Calendar, ever made by the Greeks of Italy, must have been lunar, like those of the mother country; must have been made in imitation of those of the mother country: and must all be reducible under one or other of the six Types of such Lunar Corrections in general, which we know to have been peculiar to the Greeks[a]. At least this fact is certain of the Corrections of the Primitive Calendar among the Greeks of Sicily; of which we happen to know much more from testimony: and the fact having been ascertained of the Civil Calendar of the Siciliot Greeks, it is competent to vouch for the truth of the same thing among their nearest neighbours, and nearest of kin, the Greeks of Magna Græcia.

It is manifest, under such circumstances, that whatsoever Corrections of the Primitive Calendar might be discoverable after a time in Magna Græcia, yet when traced up to their origin and referred to their proper class, they would be excluded from the scope and comprehension of inquiries, restricted to the indigenous Calendars of Italy. They could be regarded merely as branches of the Greek stock, transplanted to Italy; and not only as strange and exotic in that country, in comparison of those of native growth, and not only as later in point of date, but also as totally different from them in their nature and constitution. There was nothing in common between these Lunar Corrections of the Greeks of Italy and the Nundinal Corrections of the old Italians, except that each in their proper order of time were derived from the same Primitive original.

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[a] Fasti Catholici, i. 574.

This one class then of the varieties of the Civil Calendar which formerly existed in Italy being set aside for the present; no other is left to which the name of the ancient Italian Calendar is strictly applicable, except the Nundinal Calendar in general and the Roman Calendar in particular: and of these two the former was so much the older, so much the more extensively in use, that the characteristic national form of the Civil Calendar, proper to Italy both at first and for a long time afterwards, cannot be regarded as any other than the Nundinal. The first Nundinal Correction of ancient Italy was 590 years older than the city of Rome. The first Roman Calendar itself, (the Calendar coæval with the Foundation,) was Nundinal. And though even that *at Rome* was soon superseded by the Correction of Numa Pompilius; yet even the Correction of Numa, distinct as it might be in itself from the Nundinal Calendar, cannot be said to have been independent of it either in its origin or in its decursus: insomuch as it borrowed from it an integral and very essential part of its own constitution and details perpetually, the cycle of the Nundinal day. It is discoverable also, (and the proofs of the fact we trust will appear in due time,) that even at Rome, and even 160 years after the Nundinal Calendar had been superseded among the Romans by the Correction of Numa, it was revived for a particular use and purpose; in subserviency too to which, without dispossessing the Correction of Numa of its place in the Calendar, it was retained in conjunction with it.

The Roman Calendar in due course of time must include also the Julian Correction; as first and properly intended for the use of the Romans, and as first introduced and established at Rome. The Julian Calendar itself in the first instance was just as much in its proper order of time the proper Civil Calendar of ancient Rome, as the Correction of Numa Pompilius, or the Decemviral Calendar, or the Irregular form of the Decemviral: yet the Julian Correction was not more independent of the old Nundinal Calendar than the Correction of Numa, so long before the Julian. The same Nundinal cycle ran through both; and through both as derived originally from the ancient Nundinal Calendar. The proper

Italic Calendar therefore, as any thing different from the Primitive (the original Civil Calendar of all mankind), is after all the Nundinal; i. e. it is that modification of the nature and details of this Primitive Calendar, in contradistinction to any thing else of the same kind in general, which was made in conformity to the principles and assumptions of the Nundinal Calendar in particular. That such Corrections of the Primitive Calendar and on such principles were actually made in Italy; and that the Civil Calendar of ancient Italy, not in particular instances merely, but almost every where in that country and amongst almost all its inhabitants, was actually that which we mean by the name of the Nundinal, cannot be denied. It is equally true to say that such Corrections of the Primitive and preexisting calendar *were* made in Italy, and that, for any thing which is known or discoverable to the contrary at present, no such corrections and on any such principles were made any where else. These Nundinal Corrections of ancient Italy, as we have already observed, are consequently a class of Corrections of this Primitive and original Calendar which is *sui generis;* and well qualified both to continue the general argument of such an inquiry as that of the Origines Kalendariæ, and yet to constitute the subject of a distinct and independent work.

The Propositions laid down in the former part of the present Work, with a view to their future proof and confirmation, summarily and briefly stated, were the following: i. That the Primitive Civil Calendar was never any thing distinct from the Equable solar year of 365 days and nights. ii. That this Primitive Equable year was never any thing different from the Equable solar year represented and exhibited in the Fasti Temporis Catholici perpetually. iii. That the Civil Calendar, any where in existence at present, either is still the same with this Primitive Calendar, or was originally derived from it, and is still capable of being traced back to it and resolved into it again [b].

With regard to the verification of each of these Propositions, and in particular to that of the *third;* it is far from improbable, much less impossible, that actual proofs of the fact asserted in that proposition (proofs which would connect the Calendar of the beginning by sensible evidence with that of the present day) may even now be discoverable in some part of the world or other. The Primitive Calendar was still in existence in Armenia as late as A.D. 1710; and very probably has not yet disappeared entirely from that country: and there is good reason to think that, were proper inquiries after it to be set on foot in India and in Spanish America, it might still be met with in those quarters, unmodified and unchanged in any respect but what might easily be explained and accounted for as simply the effect of time and accidental circumstances.

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[b] Fasti Catholici, i. 544.

It was however considered best to derive the proper proof of these Propositions in the first instance, and as an example and specimen of such proofs and confirmations in general, from the ancient Egyptian Calendar; not only because of the intimate connection of that Calendar in particular with all those questions, relative to the Antiquities, the History, and the Chronology of Egypt, which have long been engaging the attention of the learned and curious, but also because as one member of a numerous family, all of the same extraction, and stamped with the same features as itself, it was the most perfect and unexceptionable of its proper class: it was the most genuine likeness of the original: and it admitted of being traced in conjunction with it, yet without any sensible difference from it, for the longest time. Accordingly the Primitive Calendar and this Egyptian type and exemplar of the Primitive were traced together in our former Work, and compared with each other, and found to be still the same, from as early a point of time as B.C. 1847 down to as low an one as A.D. 882 at least[c]: and if this ancient and primitive Egyptian Calendar may be considered *mutatis mutandis* the same with the Alexandrine, which was directly and without any intermediate link derived from it, then it may be assumed to have been perpetuated down to our time itself through this Alexandrine Correction, simply in the form and under the name of the Coptic Calendar of the present day[d].

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[c] Fasti Catholici, Dissertations xii. xiii. xiv. xv. xvi. xvii. xviii. Dissertation xix. vol. iv. 461–502.

[d] Ibid.

In the natural order of such a subject as that of an inquiry into the history of the Civil Calendar from first to last, the simple Equable Calendar as both the original form of that Calendar *every* where, and also for a long time the only form of it *any* where, must put in a claim to priority of consideration. And, for the same or a similar reason, an Universal History of the Civil Calendar which began with the simple Equable Calendar would be bound to end with the Julian; for it is scarcely less agreeable to the matter of fact at present to say that there is now no form of the Civil Calendar, actually in existence any where, but the Julian, as that formerly and for a long time after the beginning of things there was none but the Equable. On this principle, it might have appeared *a priori* the most natural course of proceeding to reserve the Julian Calendar for the last; and that inquiries projected on such a scale and carried to such an extent as those which seemed to be contemplated in our Origines, after having treated of every discoverable modification of the Primitive Equable Calendar besides, would have been most properly concluded and brought to a point by the history of the Julian Correction—which the event has proved to have been destined to supersede the rest, and to assimilate all of them to itself.

It has not been thought adviseable to adopt this course; and chiefly for the following reasons. First, Because the number of Calendars, each of them derived from the Primitive, and each of them different from the Julian as well as from one another, was much too considerable to justify any reasonable expectation beforehand that each could possibly be treated of in its turn, and with the same minuteness and circumstantiality, by the same individual. Secondly, Because, if discrimination and selection and preference in a case like this, and for such a reason as this, were not only allowable but absolutely necessary; it was clearly the author's duty to take those parts of his subject first in the order of the investigation which were most important to the Argument of the inquiry, and were likely to contribute most to the proof of the great and momentous truths which it proposed to establish: in which respect no Calendar could claim precedence of the Julian. Thirdly, Because it was also his duty to give those parts of a common subject, *ceteris paribus*, the preference which were best adapted in their own nature to the course of study ordinarily pursued in the University of Oxford, or in any similar institution; and were most likely to engage and interest the attention of students there, as well as to assist and direct their studies. Intrinsically indeed, and as each is judged of by its own merits, no subsequent part of these inquiries can be considered more important, or more indispensable to the common end and effect of the whole, than the first; which lays open and explains the true theory and relations of time, both natural and civil, in a manner conformable to the first principles and reason of things, as well as to their actual constitution and actual course: nor could we expect to do more in any continuation of the inquiries thus begun than build on the foundation previously laid; and supply by actual instances and examples derived from the matter of fact the particular proofs of what was generally asserted and laid down before. But the practical subserviency of abstract disquisitions to the wants of a place of education in particular; the bearing of proofs and illustrations, derivable from any of the calendars of antiquity except the classical, on the studies of this University; and in particular the degree of interest which they are likely to excite in the young men of this place, at first sight may not appear, and may even be very questionable. But the state of the case is changed, and the inquiry assumes a totally different aspect, as soon as it is understood that the subject of investigation is the Calendar of ancient Greece or of ancient Rome. The classical associations of an old and learned University cannot be uninterested and unconcerned in such a subject as that. It is easy to see that to do justice to it must involve a searching and critical inquiry into the whole of Hellenic or Italian antiquity; the object of which, if directed exclusively to this one effect of recovering the actual Civil Calendar of ancient Greece, or ancient Rome, from the obscurity in which it is at present involved, and of rendering it available for its proper use and purpose in illustrating and clearing up the history of either from the earliest to the latest times, is not the gratification of a speculative curiosity, but a substantial and practical benefit

Such an inquiry, if it succeeded in its undertaking, must be well calculated to fall in with and promote the proper studies and pursuits of this place. Fourthly and lastly, It should not be forgotten that while the Julian Correction was directly connected with the Nundinal Calendar through the Cycle of the Nundinal day, and with the Correction of Numa through the Cycle of Kalends or the first of January in the Roman Calendar perpetually; each of these in its proper order of time was directly connected with the Primitive Calendar. The first Nundinal day in the old Nundinal Calendar was taken directly from that Calendar; and the first Kalends of January in the Roman Calendar were taken directly from it also. It is evident therefore that the history of the Corrections of the Primitive Calendar, in this particular channel at least, first of the older Nundinal Calendar of ancient Italy in general and next of the Roman Calendar in particular, must lead up to that of the Julian Correction, as the sum and substance of every thing of the same kind before it; and could never be complete without including it. And though the Correction of Numa was comparatively late in the chronological order of such corrections in general, the Nundinal was of the highest antiquity; and excepting the Julian Corrections among the Egyptians, and the Lunar Correction prescribed for the use of the Israelites in particular, we know of none which could dispute the palm with it in that respect. No correction then of the Primitive Calendar could have a better right to precedence in the general history of such corrections than the Nundinal; yet even that could not be investigated through all its dependencies and all its connections and relations, without including the Julian Calendar also.

These reasons may perhaps suffice to justify the selection of the subjects proposed for discussion in the second Part of these Origines Kalendariæ. With regard to the method observed in the discussion, at first sight it may not appear to be the most agreeable to the title of the Work, or the most likely to be suggested by the tenor of the preceding observations. This Part begins, and for a time continues to proceed, as though it were confined to the history of the Roman Calendar; and had nothing to do with any mode or form of the civil reckoning of time in ancient Italy but that which actually existed at Rome. But on so obscure a subject of investigation as that of the nature and constitution of the old Italic Calendar, and with so little apparently in the shape of direct information *ab extra* to assist and guide our inquiries, the most obvious course was to institute the investigation *backwards*; i. e. from what happened to be better known of the same kind of Calendar in general, because of *later* date, up to what was older, and necessarily more obscure. For example, the Calendar of Romulus was one of the same kind as the ancient Nundinal Calendar in general; only it was the youngest of its proper family: and of the Calendar of Romulus, in its proper order of time, something is known from testimony, the use of which is not limited to *his* Calendar, but serves to connect even that with an older one of the same kind in general. And as even the Calendar of Romulus must have taken its rise at Rome in the year of the Foundation; we considered it necessary to begin our inquiries, even with this ultimate object in view, with collecting and comparing together the statements actually on record concerning the date of the Foundation: not in order to pronounce dogmatically for ourselves in favour of any one of them to the prejudice of the rest, but to prepare the way for that final decision between conflicting and equally balanced testimonies of this kind which the Calendar might be expected to interpose at last; and which it does in fact interpose at last.

From this preliminary inquiry into the epoch of the Foundation, we pass to the first and oldest form of the Roman Calendar, the calendar of the Founder of Rome, the Calendar of Romulus; and that being after all only one of the varieties of the older Nundinal Calendar of ancient Italy, when we enter upon the history of that we get of course upon our proper subject. But with respect to the prosecution of this subject, both according to the method lately alluded to and to its legitimate extent; we have thought it sufficient in this first instance to connect the Nundinal Correction of Romulus with that *one* Type of the more ancient Calendar of the same kind from which it was itself derived. The proper opportunity for resuming and prosecuting this branch of our investigations] will be seen to be supplied at a much later period of the Work; when the course of the subject leads us to treat of the institution of the Census and of the Lustral Cycle among the ancient Romans: including as it did the revival of the old Nundinal Calendar at Rome.

It is shewn in the proper part of the ensuing Work, that the Nundinal Calendar was so related to the Primitive, and so connected with it, that not only must it have been originally derived from it; but also as used and applied perpetually itself it must have implied the constant use and application of the Primitive. The relation between them was such that the Primitive served as the standard to which the Nundinal was referrible perpetually: the Primitive was the primary the Nundinal was the secondary form of the same thing. Nor was it possible, while the relations of origination (*de facto* inseparable from them) continued to hold good, and to be still remembered, for the latter to be regarded or treated as independent of the former. And that being the case, it is evident that for the purpose of our General Argument, and for the verification of those Propositions which we began with stating, no Correction could be more important or more to the point than the Nundinal. Under such circumstances, every distinct Type of the Nundinal Calendar, which our researches might bring to light, would be a distinct and independent proof of the Primitive; and not only as older than itself and in use before itself, but as coexistent with itself, and as still in use along with itself, ever after.

Now the Types which are actually discoverable are FIVE in number; extending over an interval of 480 years: from B. C. 1340 the date of the first to B. C. 860 that of the last. And they are so connected together by an identity of relation to one and the same original, by an intercommunion as well as an individuality of their proper characters, both Nundinal Hebdomadal and Lunar, that none of the later could have been matter of fact in its proper order of time without necessarily implying that the one immediately prior to it must have been so too. And it is in reality this connection of a later with an earlier Type of the kind in a common succession of such Types, which makes the method of the *Reditus* *retro*, to which we are otherwise reduced by the circumstances of the case, not merely the readiest and most feasible, but the safest and surest, mode of conducting these investigations in order to arrive at the truth at last. For example, we know more *ab extra* of the fifth Type than of the fourth; and yet the discovery of the fifth is an infallible clue to that of the fourth. In like manner each lower and later Type helps us on to an higher and earlier one; until at last we come to the epoch or head of the entire succession: determinable too, in its proper order of time, both in itself and in its relation to the rest, by characters of its own.

It is a necessary inference from such facts as these that, whosoever were the authors of these different Nundinal Corrections, they must all have been equally familiar with the Primitive Calendar; they must all have been in possession of that Calendar, and all have been accustomed to the use of that Calendar, before they adopted the Nundinal: and what is more, none of them could have laid it aside altogether, or ceased to retain it in any sense, even after they adopted the Nundinal. Numa Pompilius was a Sabine; and both in his time and long before his time the Sabines his countrymen had their proper Nundinal Type: and yet Numa Pompilius' own Correction was not taken from this Nundinal Type of the Sabines but from the Primitive Calendar. It follows too that, if the authors of these Nundinal Corrections of ancient Italy were indigenous in Italy, the Primitive Calendar was indigenous in Italy; if they themselves came into Italy from any other quarter they brought the Primitive Calendar into Italy from their own country. In either case the prior antiquity of this Calendar itself, (altogether the same as that of our Fasti,) in comparison of that any of these Nundinal modifications of itself (even the oldest), follows as matter of course.

But with regard to those two states of the question to which we have just alluded, Whether the authors of these Nundinal Corrections of ancient Italy were natives of Italy, or strangers who came into that country from abroad; no doubt on the strength of the Greek tradition relating to the Pelasgi of ancient Italy, or of the Roman concerning the

Aborigines, our first inclination would probably be to conclude that they must have been indigenous to Italy; and in all probability were either the Pelasgi or the Aborigines. We confess however, notwithstanding either of these traditions, (which in themselves are not consistent,) and notwithstanding the learning, the research, and the ingenuity of reasoning which have been expended in modern times to authenticate these traditions, and to find those Pelasgi or those Aborigines both a place and a time in ancient Italy; we are utterly incredulous ourselves respecting the actual existence of either of them at any time or any where in that country. On this particular question of the first inhabitants of Italy, the result of all our own inquiries and all our own discoveries is to impress us with no conviction more strongly than this; viz. That before the appearance of the first Nundinal Type in ancient Italy that country was totally destitute of inhabitants: and as this first Type makes its appearance among the ancient Umbrians, we draw from that fact the inference that the ancient Umbrians must have been the first inhabitants of Italy. And lest we should imagine (as the Greeks of old might have done) that these Umbrians of Italy some time or other sprang up out of the soil of their own country; there is good reason to believe that even these Umbrians came from Egypt: so that in reality the first settlers in Italy, on this side of the epoch of the Deluge and of the second beginning of things, were a colony from Egypt; and the first idea of that Correction of the Primitive Calendar so peculiar to and so characteristic of ancient Italy, which we call the Nundinal, is to be traced to Egypt.

But with reference to this same question of the order, the time, the distinctness of the several steps or stages in the consummation of this one process of the gradual peopling of Italy; the most remarkable circumstance is *this*: That, as it cannot be denied that, besides the ancient Umbrians, many other names and nations, little inferior in antiquity even in Italy to the name and nation of the Umbrians, after a time must have been known of there and must have been settled and living together there; so for each of these national denominations and distinctions in Italy we discover a distinct Nundinal Type. For instance, the second Nundinal Type is found to have been peculiar to the Sabines; and there is good reason from testimony still in existence to believe that this Sabine Correction of the Primitive Calendar, on the Nundinal principle, was the work of one of their oldest kings and legislators, if not their very oldest king and legislator, the Sabine Sancus or Sangus. Now the date of this Type was B. C. 1220. Is any one prepared to maintain that even the Sabine race was older in Italy than B. C. 1220? or that any proof to that effect is capable of being adduced at present? What then must be inferred from this fact, except that the proper date of this Sabine Type of the Nundinal Correction must have been as nearly as possible that of the rise of the Nomen Sabinum itself in Italy also?

The most extensive migration to Italy from any other quarter, and the best attested by ancient history, is that of the people whom the Greeks uniformly called the Tyrrhenians, and the Romans as uniformly the Etrurians; and the traditionary account of the origin of this people in Italy, viz. that they came to Italy from Mæonia in Asia Minor, is not merely the only one which can be said to have been handed down historically in any shape, but in our opinion, (as we have had occasion to shew in the course of this present Work,) is the most consistent and probable. These Mæonians, Tyrrhenians, or Etrurians no doubt brought the Primitive Calendar along with themselves to Italy; for we have proofs in reserve that it was actually in use in Asia Minor long before this migration of theirs from Asia to Italy, and long after it too. With respect then to any Correction of this Calendar, which if made by these Etrurians after their migration must have been made in Italy, and if made in Italy must have been made on the Nundinal Principle, conformably to the general rule of such corrections any where and at any time made in Italy; we discover two Types of this kind, both peculiar to the Etrurians, the *fourth* and the *fifth* in the general succession of such Types; the former, of the date of B. C. 980, the latter, of that of B. C. 860. And this fact is demonstrative that the Etrurians of Italy also had their proper distinctive and national Calendar of this kind, as much as the Umbrians or as the Sabines. Nor is it any objection that even the earlier of these Etruscan Types was much later than the proper date of the Tyrrhenian migration to Italy. That fact proves only that, as they must have brought the Primitive Calendar with them to Italy, so they must have continued to use it, unchanged and unmodified in any respect, long after their settlement in Italy. It has been explained already that, wheresoever the Nundinal Calendar was in use, there the Primitive must have been in existence also. It will be seen too in the course of the ensuing Work that it was not every time which was competent to serve for the adoption of such a Correction of this Calendar as the Nundinal; and that, if the proper opportunity for doing so had once been suffered to pass by, it would be long in the nature of things before it could recur again—in fact that, between one of these Nundinal Corrections in its proper order of time and the next to it, the interval could not be less than 120 years. We cannot enter at present into all the explanations which might be necessary to clear up every question of this kind; but it will appear, we hope, in due time that, even when the second of these Etrurian Types of the Nundinal Correction in its proper order of succession was attached *de facto* to B. C. 860 (as it was bound to be); the origin or epoch of the Nomen Etruscum itself in Italy was very significantly attached to B. C. 1220, a point of time 360 years earlier: from which we cannot but draw the conclusion that, when that Type was adopted in its proper order of time, it was known or believed that the Nomen Etruscum was at least 360 years old in Italy; and consequently that so long before at least must the original migration of the colony from Asia to Italy have taken place.

In this manner does the ancient Nundinal Calendar reflect new and unexpected light on this question of the gradual colonization of ancient Italy; and on that of the absolute or relative antiquity of the different races and communities which are found to be living there after a time in conjunction, yet independent of one another, and with a name and nationality of their own. For to complete our list of Nundinal Types, peculiar to Italy in general yet characteristic of distinct names and nations in Italy, we have still to mention only the third; the date of which was B.C. 1100, and the use of which was characteristic of the Prisci Latini of Italy. Now, when we have specified the Umbrians, the Sabines, the Etrurians, the Prisci Latini, (including the Arcadians under Evander and the Trojans under Æneas,) we have in reality enumerated all who were actually distinct, and yet must have been settled and living together in Italy from a very early point of time, (much earlier than the beginning of authentic history any where, out of the Bible,) and through themselves and their colonies must have been the means of peopling its whole extent—those parts only excepted which were occupied by the Greeks. And for each of these principal and comprehensive divisions of the original settlers in Italy, there is a distinct Nundinal Type; so that, in fact, in these different Types of the Nundinal Calendar of ancient Italy in general, we have a perfect reflection of its different national distinctions in particular; and from the relative antiquity of these different Nundinal Types, we may probably conceive the best and most correct idea of the relative antiquity of those distinctions in this one country: and of this form of the Civil Calendar in general which we call the Nundinal, in contradistinction to any other, it may be predicated, and with truth, that it goes back to the very beginning of social existence in its own country, just as the Primitive Calendar (and that only) did to the beginning of society every where.

The statements which we had occasion to make in the former Part of these Origines, in anticipation of any of those subjects or those conclusions which will be found to be discussed and established in this second Part, (such as the Nundinal Calendar and Nundinal Cycle of earlier Italian antiquity, the Calendar of Romulus, the Calendar of Numa, or that of the Decemvirs, the Irregular Roman Calendar or Kalendarium Vagum Romanum, the Julian Correction, and the nature of the administration to which it was actually subjected for the first 269 years of the Æra Juliana,) are all verified and substantiated in the course of the ensuing Work, and with a superabundance rather than a deficiency of the necessary proofs. As to the Nundinal Calendar in particular, we have already said enough to shew that our former statements on that point instead of exceeding fell much below the truth[e]; and that in lieu of two Types of that kind, distinct from the

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[e] Fasti Catholici, i. 504.

Calendar of Romulus, we ought to have affirmed the existence of five.

Improbable indeed and even incredible as the assertion of the fact is likely to appear to many of our readers, we do not hesitate to say that the genuine Nundinal Cycle of classical antiquity, and the actual Nundinal Calendar not of the Romans only in the time of Romulus or of Servius Tullius, but of the Etrurians, the Latins, the Sabines, the Umbrians also, has been recovered in its integrity even at this distance of time; and is faithfully and punctually represented, in the Tables which we have compiled for that purpose, from B. C. 1340 down to A. D. 355 at least. And for the proof or illustration of the matter of fact in this respect perpetually, it was a fortunate (or rather, to speak more becomingly, a providential) circumstance that the Roman calendar in particular did not long continue to belong to the old class of the calendars of Italy in general; but was speedily superseded among the Romans themselves by a totally different calendar, the Lunar or Octaëteric correction of Numa Pompilius: and it was still more providential that even this proper Roman Calendar of a different kind never ceased to be connected with that older and more strictly Italic form of the calendar, through the cycle of the Nundinal day. The course of this cycle as it entered the Calendar of Numa (i. e. the proper Roman Calendar of later date) from the first, and continued to run through it, accompanying the cycle of Kalends, ever after, is matter of fact. It is not a subject for hypothesis, or probable reasonings of any kind; but simply of historical investigation, and of what is or is not agreeable to testimony throughout. Nor in the comparison of the more ancient Nundinal cycle of our own Tables with that of this Calendar of Numa does the question lie between the consistency of a series of arbitrary and positive arrangements on one side and that of a similar series on the other; or between the consistency of a certain course and succession of things at one time and that of the same course and succession at another: it lies entirely between the decursus and details of a scheme and succession of a certain kind which *professes* to be an actual one throughout, and those of another of the very same kind which *must* have been so. Now this *actual* Nundinal cycle of the *actual* Roman Calendar from the time of Numa Pompilius downwards, confirmed as it is by testimony at every period, is still the same with the Nundinal cycle of the old Nundinal Calendar. Nor is it possible to designate a time, in the whole of the interval during which that proper Roman Calendar and this older Nundinal Calendar were proceeding parallel to each other, when the same day was not the same Nundinal *feria* in both; and yet that interval extends from B. C. 712 to A. D. 355 at least. If then the Nundinal cycle of our proper Roman Calendar all this time was an actual fact, so must that of our more ancient Nundinal Calendar have been; and consequently not only from the time when it began to accompany that of the Roman (comparatively so late in its own decursus) but long before, and while it was yet proceeding by itself: i. e. in fact from the very first.

Now the proper Nundinal cycle of this more ancient Nundinal Calendar being authenticated and shewn to be matter of fact by contemporary testimony so demonstrative as that of an actual cycle of the same kind, derived from it originally and identical with it ever after; it is very important to observe that the proof and confirmation of the Nundinal cycle of the ancient Italic Calendar is that of the Hebdomadal Cycle of our Fasti Catholici also: not merely because the course and succession of Noctidiurnal time must have been absolutely the same in each of those cycles, and must have run through both perpetually exactly in the same way; but for another reason also, which every one will comprehend as soon as he is told that the Nundinal Cycle was virtually the same with the Hebdomadal; the Nundinal was the Hebdomadal merely in a different form and under a different name. Our inquiries into the history of this very ancient cycle bring a truly important fact to light; viz. that the first Nundinal Cycle was taken from the Hebdomadal of the time being: and that the *feria prima* of the first Nundinal Cycle was borrowed from the *feria septima* of the current Hebdomadal Cycle. At least, as matter of fact it is certain that the same Julian term, B. C. 1340, which was the *feria* *prima* of the first Nundinal Cycle, was the *feria septima* of the corresponding Hebdomadal Cycle: and that it must have been purposely so constituted and at that time is proved by another fact which these researches bring to light; viz. that the *feria prima* of the Nundinal Cycle was possessed from the first of a certain religious character and estimation above every other in its own cycle, just as the *feria septima* of the Hebdomadal always was above every other in its proper cycle also. Laying these facts together we cannot hesitate to draw the inference from them to which they so naturally lead; viz. That the *seventh feria* of the Hebdomadal Cycle was purposely constituted the *first feria* of the Nundinal, in order that the acknowledged character and estimation of the former might become from the first and ever after continue to be the right and property of the latter.

There was consequently no difference at first between the Nundinal Cycle and the Hebdomadal. The epoch or zero of the entire succession of the former was that of a parallel succession of the latter. And these two successions being thus absolutely the same in their origin and setting out from the same zero or epoch of each; they could never be otherwise than relatively the same (i. e. more than accidentally different) ever after. The same law of the constant decursus of Noctidiurnal time in annual (whether civil or natural), which determined a given Equable or Julian date at a certain point of time to a certain *feria* of the Nundinal Cycle, must determine it at the same point of time to a corresponding *feria* of the Hebdomadal. For example, in the constant succession of the same Nundinal Period of 120 years, (the nature of which is explained in the course of the ensuing Work,) this law determined the first day of the Equable year, (the first of the Equable Thoth,) to the same *feria* in the Nundinal Cycle, at the beginning of every subsequent Period of that kind, from which it set out at the beginning of the first; and to the same *feria* in the Hebdomadal, increased by *unity*, from which it set out at first. The reader therefore will readily comprehend that if the first of Thoth, at the epoch of the *first* of these Periods of 120 years, was the *feria prima* of the Nundinal cycle and the *feria septima* of the Hebdomadal; at the epoch of the *fourth* it would still be the *feria prima* of the Nundinal, but it would now be the *feria tertia* of the Hebdomadal: and at the epoch of the *fifth* it would still be the *feria prima* of the Nundinal, but it would now be the *feria quarta* of the Hebdomadal.

Now these were the two Etruscan Types properly so called, to which we have already adverted; one that of the date of B. C. 980, the other that of the date of B. C. 860. We have it on testimony that such was actually the Hebdomadal character of these two Types respectively; that of the former the *feria tertia*, that of the latter the *feria quarta:* a coincidence which, in our opinion, authenticates the Hebdomadal Cycle of our Fasti at these two points of time, B. C. 980 and B. C. 860, respectively beyond all contradiction. But the reader will now also readily comprehend that if the Hebdomadal character of the *fifth* Type was truly the *feria quarta*, and that of the *fourth* was truly the *feria tertia ;* that of the *third* must have been the *feria secunda*, that of the *second* the *feria prima*, and that of the *first* the *feria septima*. And thus, from the ascertained and historical Hebdomadal character of the last two of these Nundinal Types, we should be enabled to ascend to that of each of the other three in its order before them: and the Hebdomadal Cycle of our Fasti Catholici in general, as well as the Nundinal Cycle of our present Tables, would be attested, confirmed, and placed out of question by evidence the most infallible and conclusive at five different points of time, 120 years asunder respectively, B. C. 860, B. C. 980, B. C. 1100, B. C. 1220, and B. C. 1340.

Nor is this all. Testimony is extant (and very authentic testimony, as we hope it will appear in due time) that the Kalends of January U. C. 1108 of Varro in the actual administration of the calendar at Rome until then and at that time combined two characters; one that of the *feria prima* of the Hebdomadal Cycle, the other that of the *feria prima* of the Nundinal: i. e. the first of January A. D. 355 was Sunday in the Hebdomadal Cycle, and Sunday (so to say) in the Nundinal also. Now in the regular administration of such a Calendar as the Julian, and in the regular course of two such Noctidiurnal Cycles as the Hebdomadal and the Nundinal in such an Annual Cycle as the Julian year; if this coincidence had happened once under certain circumstances, it could not happen again under the same circumstances in less than 28 × 32 or 896 years. How then was this coincidence, which thus held good *de facto* A. D. 355, brought about? Certainly not by the regular course of these two cycles conjointly in a regular annual cycle like the Julian, from the epoch of the Julian Correction merely, which at that time was not more than 399 years old; and besides for more than half of its duration up to that time had itself been irregularly administered. It was brought about by nothing but the actual course of Noctidiurnal time, measured perpetually by two such cycles as the Hebdomadal and the Nundinal, from the same epoch or origin of each, in the actual course and succession of Annual time, similarly measured by two such cycles as the Nundinal year and the Roman year, whether regular or irregular, Julian or not Julian, first from B. C. 1340 to B. C. 712, and then from B. C. 712 to A. D. 355. Under which circumstances, in order to bring about this coincidence at last, it must be as certain that the same Julian term, July 19 B. C. 1340, must haye been the *feria septima* of one of these cycles and the *feria prima* of the other, as that the same, January 1 A. D. 355, must have been the *feria prima* of each.

It is an obvious inference from these premises not only that the Hebdomadal Cycle must have been an older cycle of its proper kind than the Nundinal, but also that, whosoever were the authors of the Nundinal Cycle, they must have been previously acquainted with the Hebdomadal, and previously accustomed to the use of the Hebdomadal. If then they were indigenous to Italy, the Hebdomadal Cycle was indigenous in Italy, and older even in Italy itself than the Nundinal. If they were not indigenous to Italy they brought this cycle with them to Italy. If therefore those authors and originators of the Nundinal reckoning of Noctidiurnal time were the Umbrians, and the Umbrians came from Egypt; in Egypt at least the Hebdomadal Cycle must have been as old as B. C. 1340: and no doubt much older too.

The tenor of these observations naturally leads us to say further that there are many other exceedingly curious and interesting discoveries which were first made in the former part of this Work, and yet will be found to be substantiated and illustrated by fresh evidence in the course of this second part. For example, with respect to a very obscure subject, the history of which hitherto has been little understood, the ancient cycle of solar and lunar eclipses commonly called the Saros; we had occasion in the former part to inquire into it[f]; and we saw good reason to conclude that the first persons to discover that cycle, and the first to delineate the scheme of such a cycle in each of its parts, the solar and the lunar alike, must have been the ancient Egyptians: and yet that the Chaldees of antiquity had a cycle of the same kind also, borrowed indeed from the Egyptian one, but digested in periods of the Chaldaïc Sar, or Greek Exeligmus, 54 equable years 46 days perpetually: and that this was so far to be considered peculiar to them. This Chaldaïc ecliptic cycle and in this form of the Exeligmus is discoverable among the ancient Etrurians also, attached to its proper lunar epoch of August 11; and another cycle of the same kind besides, derived from the Chaldaïc, but more properly the Etrurian than that, and attached to a different lunar epoch, September 25. As attached to either of these epochs, August 11 or September 25, this ecliptic cycle was one of lunar eclipses only. The original cycle (the Egyptian) was one of solar eclipses as much as of lunar; and had a proper epoch in either capacity. The Chaldaïc Exeligmus too had its solar as well as its lunar epoch; and it will appear we trust hereafter that the former also was known of in Italy: though we have not been able to trace the knowledge of this solar epoch as far back in Italy as that of the lunar.

Another of the discoveries to which we have alluded, (and probably one of the most important and interesting of all,) the evidence of which was detailed at great length in the former part of this Work[g], was that of the distinction and yet the combination and union of spheres, the sphere of Mazzaroth and the Tropical sphere; first made by the an-

[f] Fasti Catholici, iv. 91 sqq.

[g] Fasti Catholici, iii. 250 sqq. Diss. xv.

cient Egyptians also: and at the time of the institution of their Phœnix Period, B. C. 1847. The explanation of that distinction involved the entire secret and mystery of the traditionary astronomy of the Postdiluvian world; and, through it, of that of the Antediluvian also: as thus developed and explained too, so entirely in conformity to the truth, and to the reason of things, at the time, that even modern astronomy in its present improved and advanced state could find no fault with it. We have met with the proofs of this same distinction yet combination of spheres among the ancient Etrurians also; according to which, in the Etruscan scheme of that kind the cardinal points of the Tropical sphere were assumed and laid down in the *eleventh* degrees of that of Mazzaroth: though in the Egyptian they were never laid down in any but the *fifteenth*, the *twelfth*, and the *eighth*, respectively. No assumption of this kind could be true perpetually; nor yet be made conformable to the changes produced by time itself in the relations of two such spheres one to the other, without being periodically revised. Accordingly among the Egyptians, and so long as the original and genuine plan of the administration of the Phœnix cycle continued to be observed by them, these assumptions were reconsidered, and readjusted to the truth of nature, every 500 years. Whether they were similarly corrected among the Etrurians, at the end of some corresponding cycle, if not of one entirely the same, is a doubtful point; concerning which we have not been able to satisfy ourselves by any certain proof. There is reason to believe that even though these assumptions might have been corrected by them from time to time for any esoteric and more recondite purpose, yet as laid down in the first instance for popular use and convenience they were never revised—they were supposed to hold good perpetually. They are recognized at least, as still holding good, in the time of Cato the censor; and even long after his time.

In like manner with respect to the very singular doctrine, which came up in Egypt in B. C. 798, relative to the alternate Recession *in antecedentia*, and Precession *in consequentia*, of the cardinal points of each of these spheres[h], without any change in the stated distance of each from the other, or in the relation of each to the first point of its proper sphere perpetually; and with respect to the change in the cycle of the Phœnix Period, and the change in the epoch of that cycle, which also was first introduced into Egypt in B. C. 798[i]: though we have not met with any clear and decisive proof of the reception of the doctrine in question among the Etrurians, we have ascertained that they also had their Phœnix Period; measured by the same cycle, and *mutatis mutandis* attached to the same epoch, as this new Phœnix Period of the Egyptians: and therefore, no doubt, borrowed from the Egyptians. And, by means of this Phœnix Period of the Etrurians and its proper cycle, we are enabled to discover the standard of the mean natural year which must have been assumed by them; just as from the proper Phœnix Period of the Egyptians and its cycle also we enucleate that which must have been assumed by them[k]. These standards in themselves indeed were very different one from the other; but that is not the principal thing to be attended to in a case of this kind. The proper use of these discoveries, made as they are, is to illustrate the modes of proceeding, to which the astronomers or men of science of antiquity appear to have had recourse for the solution of problems which modern science determines in a very different way; and the proper inference to be drawn from this contrast is that, where the modern astronomer proceeds by theory and observation in conjunction, the ancient astronomer went by theory only: but by theory in the sense of *tradition*, *prescription*, and *authority*. In other words, the astronomy of the earliest antiquity was altogether traditionary; and rested at bottom on authority, not on observation. But there is this great difference between the tradition of Egypt in that respect (at first at least) and that of any other country, that while the latter, (in one subsequent instance after another,) is found to deviate more and more widely from the truth, the former appears to have been altogether in accordance with it; and the more so the further back it can be traced[k]. And from the fact of this distinction we, for our part, can draw no inference but one; viz. That a tradition so remarkably true to nature that even modern science with all its improvements can find nothing to object to, nothing to correct in, its proper assumptions, yet so near to the beginning of things and to the fountain head of all the science and all the knowledge, which could possibly have been handed down by tradition, is not only a faithful reflection of what was so taught and so handed down from the first, but very probably must have been originally the dictate of inspiration itself.

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[h] Fasti Catholici, iii. 439 sqq.

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[i] Fasti Catholici, iii. 475 sqq.

[k] Ibid. 499 sqq.

In the course too of these subsequent inquiries of ours we have met with proofs that the Hebdomadal Cycle under Planetary names (the same which were imposed upon it first by the Egyptians in this year B.C. 798 also[l]) must have been early known to the Etrurians; and that they could have been no strangers to the Apis Cycle of the Egyptians, of the epoch of B. C. 973 at least. But whether they were in possession of such a cycle from the first, associated with the Primitive solar year which nature intended it originally to accompany, and perpetuated among them, as it was among the Egyptians, by an uninterrupted use and observance from the beginning of things, we cannot undertake to say; though we incline to the opinion that they were not: and that the continued retention and use of the natural lunar cycle of the Primitive solar year, in this shape of the Apis Cycle, from the beginning of things down to so late an epoch as B. C. 973, among the nations of antiquity was peculiar to the Egyptians.

Neither have we met with any proof that the Lunar Mansions of the Egyptians (which among them were as old as the Phœnix Period[m]) must some time or other have passed to the ancient Etrurians; or that any division of the sphere (sidereal or lunar) analogous to that of the mansions in the sphere of the Egyptians could ever have been recognized among them: though these mansions certainly passed out of Egypt into many other parts of the ancient world, (some of them much more remote from Egypt than Etruria,) Arabia[n], India[o], China[p], and Persia[n]. Nor does it appear that the relations of mean lunar to mean solar time involved in the principles and assumptions of the Nundinal Period were either assimilated at first to those of the same two things as they entered the Apis Cycle of the Egyptians, or ever corrected and modified in conformity to them; though these latter were so much the more agreeable to the truth, and were in fact the most perfect and unexceptionable type of such relations which could have been proposed for imitation[q]. And yet it does appear that the most characteristic assumptions of the Nundinal Period *mutatis mutandis* were derived from those of the Phœnix Period[r]; and do in reality conduce more than any thing else to trace the original conception and idea of this Nundinal Period itself even in Italy up to Egypt, as its true birthplace after all.

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[l] Fasti Catholici, iii. 489 sqq.

[m] Ibid. iii. 328 sqq.

[n] Ibid. iii. 562 sqq.: 602 note, sqq.: iv. 661 sqq.

[o] Ibid. iv. 47 sqq.

[p] Ibid. iv. 8 sqq.

But the most remarkable confirmation of our former conclusions supplied by these further and later inquiries is *this;* That we find among the Etrurians the genuine equable date of the miracles which affected the sun in the time of Joshua and in that of Hezekiah respectively: both the equable date of the first miracle, which corresponded at that time to May 31 B. C. 1520, and the equable date of the second, which then corresponded to May 31 B.C. 710; each too as the proper date of a miraculous phenomenon of the kind in question, and each as consigned to the calendar in that capacity at the time. It has been shewn indeed in the former part of this Work[s] that the equable date of the second miracle in its proper order of time was recorded in the Chinese Calendar, characterized by the *feria Gintchin* (the 29th) of the Sexagesimal Cycle; a character which truly belonged to it at that time: and it is shewn in the course of this second part that the same date must have been consigned, at the same time, to the Greek Calendar also; and that through the Parapegma of Columella it was always capable of being recovered from that Calendar. But to meet with the actual equable dates of both these miracles (one of them 810 years older than the other) in any quarter of the ancient world was an unexpected piece of good fortune; which may well be supposed to have supplied the *coronis* and *colophon* of that accumulation of testimony *ab extra* to each or either of these miracles, which was brought together on the former occasion[t]. And to find both of them among the ancient Etrurians (though we cannot find either of them among the ancient Egyptians) is well calculated to give us the highest opinion of the care and exactness with which every thing truly deserving of notice must have been observed and recorded among them in particular; and not in Italy only but in their original country also. For the first miracle, if observed and recorded by them at all, must have been so long before the Migration, and in Asia; the second long after it, and in Italy.

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[q] Fasti Catholici, iv. 386 sqq. [r] Ibid. iii. 499 sqq. [s] Ibid. i. 365 sqq.

Our readers indeed may be curious to know from what quarter *we* can have derived the knowledge of such facts as these, hitherto unknown to others; and what sources of information on such points can have been accessible to us which have not been open to all the learned in our time or before our time also. And to this very natural question we answer, That these things have come to our knowledge partly from the Tagetic writings of the Etrurians, translated by Johannes Lydus, partly and chiefly from the Parapegma of Claudius the Tuscan, which in its Greek form at present makes part of the remains of Lydus also, but in its original state was a genuine Etruscan monument, compiled by its author from records and documents preserved in the Temples of the Etrurians. These sources of information have been open to the learned in general, as much as to us, and still are so; but even the learned, we hope, will not take it amiss to be told that, without the knowledge of many other things, brought to light for the first time in the Fasti Temporis Catholici and the Origines Kalendariæ, nothing of that kind could ever have been properly understood, or rendered available for its legitimate uses and purposes: and that nothing of that kind, howsoever long it has been before the learned world, ever yet has been so understood or so applied, they themselves must confess.

With respect however to the matters of fact and the conclusions established in the ensuing Work, probably none will be more opposed to the implicit conviction and belief of learned men and chronologers at present, and consequently none will have more to apprehend from the strength of their prepossessions and prejudices to the contrary; than the account which is given in it of the Julian Correction, and of the actual administration of the Julian Calendar at Rome for 269 years after the date of the Correction. It has been taken for granted by *all* the learned that the Kalends of January in the first year of the Julian Æra properly so called (U. C. 709 of Varro) were left by the Correction attached to January 1 B. C. 45. And though it has never been unknown to any of them that for 36 years at least after the Correction the Calendar was irregularly administered; it has always been taken for granted that this irregular administration was simply the effect of ignorance; i. e. of a misapprehension, on the part of those who had the charge of the calendar at Rome, of the proper Julian rule of the cycle of leap-year: and that such as the irregularity was *de facto*, and produced as it might have been, even that in due course of time was discovered and rectified; so that within *twelve* years of the discovery the calendar was replaced in the state in which it had been left by the Correction, and in which it must have been found at the end of those *twelve* years if the proper Julian rule of administration had been regularly observed from the first until then.

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[t] Fasti Catholici, i. 321–383: iv. 595–622.

With what surprise then and what incredulity will they hear it asserted that, except the simple historical fact just adverted to of the 36 years' irregularity, none of these things is true! that the Kalends of January in the first Julian year were not left attached to January 1 B. C. 45, but to December 30 B. C. 46! that the irregularity so early admitted into the administration of the Julian Calendar at Rome was not admitted through any misapprehension of the proper Julian rule! that the rectification of this irregularity in the first instance did not preclude the recurrence of the same or a similar anomaly in the actual administration of the Calendar for 233 years afterwards! that the Kalends of January in the actual Roman and Julian year all this time were not permanently attached to any one Julian date, and in particular not to that of January 1! that they might, and in the course of this interval actually did, sometimes advance as high as January 3 beyond this particular term, and sometimes recede as far as December 28 below it. The mere statement of these propositions is sufficient to imply that nothing can be more directly opposed to the common belief on these points than the simple matter of fact; demonstrated indeed in the course of the following Work, but not without the necessity of a long and minute examination of almost every year in the whole of this interval, with a view to ascertain its true chronological characters: the laboriousness of which could be adequately rewarded only by the completeness of the proof thereby established at last, and impossible to have been made out in any other way.

After however the 270th year of the Julian Æra we have not been able to discover the least symptom of the continuance of this state of things in the Calendar any longer; nor do we believe that from this time forward any degree of research will succeed in detecting a single instance of inconsistency between the actual administration of the Julian Calendar at Rome and the proper Julian rule. The fact therefore which we have uniformly affirmed, viz. that the 270th year of the Julian Æra A. D. 225 Ex Kalendis Januariis, and not the first B. C. 45 Ex Kalendis Januariis, was the real epoch of the final and permanent fixation of the Roman Correction of the Dictator Cæsar in its present Julian form; this fact we say must hold good agreeably to our assertion: for no one can require to be told that even the Julian Calendar in its present form is only the Roman Correction of the Dictator Cæsar, which was fixed some time or other in *that* form; and having been *once* so fixed and at *that* time has been transmitted in *that* form, unchanged and unmodified in any essential respect, from the time when it was so fixed down to the present day.

And yet it will abundantly reward the utmost degree of attention which the reader can bestow on this subject—to observe and note the circumstances of the fixation, which thus took place in the 270th year of the Julian Æra; not merely because of the remarkable proof which they afford of the real and actual though invisible Providence which has always directed the course and succession of time, but also because of the light which they will be found to reflect on the *Theory* and *Praxis*, the *Principles* and *Administration*, of the whole of the system of Noctidiurnal, Hebdomadal, and Annual time (including both Natural Annual, and Civil Annual in the sense of Julian constantly equated to Natural) which is proposed in the Fasti Temporis Catholici. If we can make it appear that the circumstances of this fixation do contribute materially to clear up and illustrate so important and yet so obscure and abstract a part of our subject as that; we shall doubtless be excused not only for calling the reader's attention to them, but even for dwelling upon them, if it should be necessary to do so, at considerable length.

We begin then with observing that this 270th year of the Julian Æra, reckoned from the Kalends of January at midnight U. C. 978 of Varro, coincided with A. D. 225, reckoned from January 1 at midnight; and that A. D. 225, reckoned from January 1 at midnight, was the date of the egress of the xxxivth Julian Type from our Tables and of the ingress of the xxxvth into them: and yet that, with respect to the egress of the xxxivth Type and the ingress of the xxxvth just at this moment, nothing was taking place which had not been of stated and regular occurrence at the egress of one Type and the ingress of the next to it all along before; that nothing in short was taking place at this particular time which had not taken place under similar circumstances xxxiv times before: that being the exact number of Julian Types, each of which in its proper order of succession had both come into and gone out of our Tables from B. C. 4004 to A. D. 225.

Again, we observe that in the last year of this xxxivth Type, reckoned from January 1 at midnight A. D. 224, according to the law which had regulated the constant succession of the Noctidiurnal Cycle in the Hebdomadal, and that of both in the Annual in the sense of Julian, from the beginning of the Tables until this time, January 1 was the *feria sexta*; i. e. January 1 A. D. 224 was *Friday*: and that in the first year of the xxxvth Type, reckoned in like manner from January 1 at midnight, according to the same law, January 1 was the *feria septima;* i. e. January 1 A. D. 225 was *Saturday*. And yet it will no doubt be observed that the year between these extremes of January 1 at midnight A. D. 224 and January 1 at midnight A. D. 225 respectively, in the regular course of the Julian cycle of leap-year was, or ought to have been, a leap-year; and therefore had, or ought to have had, a leap-day, and in the usual place of such a day in the Julian Calendar: i. e. after the 28th of February A. D. 224. And each of these things being observed and noted accordingly, on comparison they must appear to be inconsistent; and even *recta fronte* at variance with each other. For if January 1 A. D. 224 was actually the *feria sexta,* and January 1 A. D. 225 was actually the *feria septima,* the year between them (January 1 A. D. 224 to January 1 A. D. 225) must have been a common year. On the other hand, if this year was actually a leap-year, and actually had the leap-day whether in the usual place, or in any other part of the year, then, if January 1 A. D 224 was truly the *feria sexta,* January 1 A. D. 225 must have been the *feria prima;* or *vice versa,* if January 1 A. D. 225 was truly the *feria septima,* January 1 A. D. 224 must have been the *feria quinta.*

Such is the inconsistency, and even at first sight the contradiction, involved in the state of the case exactly as it appears in our Tables just at the egress of the xxxivth of our Julian Types, and just at the ingress of the xxxvth. It amounts apparently to an impossibility; viz. that one and the same Julian year in the proper order of one and the same cycle of leap-year should have been both a common year and a leap-year, should both have had and not have had the usual leap-day. And whatsoever else may require to be said in explanation of it also, yet if it is to be accounted for on any rational principle which shall shew it to be no contradiction in terms, no impossibility, after all; the first thing necessary to that effect is to take into consideration the relations of two things to each other, at this particular point of time, (that of the egress of the xxxivth Julian Type from our Tables and the ingress of the xxxvth into them, A. D. 224 and 225,) the Julian year of the Tables and the Julian year of Chronology; which are indeed actually the same at present, and as each making use of the same nomenclature, and as each of them subject to a common rule of administration, externally and in appearance seem to be the same perpetually: and yet, notwithstanding that, if carried back in conjunction to so remote a point of time as this of A. D. 224 or A. D. 225, and compared together at that moment, may possibly be found to differ.

Now with respect to one of these two, the Julian year of the Tables, forasmuch as it enters our Tables B. C. 4004, so long before A. D. 224 or A. D. 225, and is brought down in them from one of those points of time to the other in a form and manner always identical with itself; it is self-evident that it is just the same thing at this point of time, A. D. 224 or A. D. 225, as it had always been before: and forasmuch as it still proceeds in the Tables from this point of time forward exactly in the form and manner in which it had done so before, it is manifest that it continues to be the same thing after this point of time as it had always been before. But with respect to the Julian year of Chronology; it is neither more nor less than the year which is actually in use at present, under the name of Julian; carried back, if the necessity of the case requires it, to any former point of time, and assumed to have been in use at that time also exactly as it is at present.

Now as to the Julian year which is actually in use at present, or was so down to the time of the Gregorian Correction; no one can deny that in every essential and characteristic circumstance, in the names and order and lengths of its months, in the cycle of its leap-year, and in the seat of its leap-day, it is absolutely the same with the Julian, in the sense of the proper Roman, year of that kind, the Roman and Julian Correction of the Dictator Cæsar; regularly transmitted from some proper time or other, and under some proper form or other which it was actually wearing at that time, down to the present day. It is merely an accident that the first day of this proper Roman and Julian year in its own style was called the Kalends of January, and in that of the Julian year at present is called the first of January. It is certain that, had the proper Roman style of the Correction been transmitted along with it to the present day, and we were now calling the first day of the Julian year the

Kalends of January as the Romans of old did, still we should have been meaning by the Kalends of January in the old Roman style exactly the same thing which we do mean at present by January 1 in the modern style. And it is equally certain that, did we go back with the first day of the Julian year at present in use to any former point of time (for instance A. D. 225), carrying with us the proper Julian rule in all respects such as it is *de facto* in use at present, it would be perfectly indifferent whether we called the first day of that year, A. D. 225, the Kalends of January or the first of January. The same day, at that point of time, would be meant by both.

The first question is therefore *this*; If the Julian and Roman Correction, from which we derive the Julian year at present in use, was not regularly administered in conformity to the proper Julian rule from the date of the Correction downwards, from what time later than the date of the Correction did it begin to be regularly administered? And the answer to that question is *this*; That it began to be regularly administered either in the 269th year of the Correction, A. D. 224 Ex Kalendis Martiis, or in the 270th, A. D. 225 Ex Kalendis Januariis. The next question then is What was the form which it was wearing *de facto* at that particular time? for whatsoever form it was wearing at that time, it must have continued to wear ever after, down even to the present day. And this question is virtually the same as What was the proper Julian style of the Kalends of January A. D. 225? The answer to which is *this*; That, as the proper Julian style of the Kalends of January in the first Julian year, U. C. 709, was December 30 B. C. 46; so the proper Julian style of the Kalends of January in the 269th year, U. C. 977, was December 31 A. D. 223, one day earlier than January 1 A. D. 224.

Now the Hebdomadal character of this year, A. D. 223, in the perpetual cycle of the Dominical Letter of the Tables, was D; and D being the Dominical Letter January 1 was the *feria quinta*, and December 31 also was the *feria quinta*. If then the Kalends of January U. C. 977 in their proper Julian style were the same with December 31 A. D. 223, they too must have been the *feria quinta*. And that being assumed to have been the case; let the reader attend to *this* coincidence: viz. That in the proper order of the cycle of leap-year in the proper Julian Correction of Cæsar, from the first such year (U. C. 709) to the 68th, U. C. 977 must have been leap-year; and if it was only administered at Rome as such, and had the usual Bissex Kalendas Martias, the Kalends of January U. C. 978 as matter of course would be the *feria septima*. Now testimony is extant (contemporary testimony too, that of the Paschal Cycle of Hippolytus[u]) that such was the case; that U. C. 977 the 269th year of the Julian Correction, A. D. 223–224, was treated at Rome as a leap-year, and had the usual leap-day, and in the usual place of such days in the Roman Calendar.

From this fact then, and from the other before pointed out, that just at the same point of time January 1 A. D. 225 also in the style of our Tables was falling on the *feria septima*, it must follow that the Kalends of January in the proper Roman style of the first day of the 270th year of the Julian Æra, (U. C. 978,) and January 1 in the proper Julian style of the first day of the first year of our xxxvth Julian Type, (A. D. 225,) were absolutely the same; because just at this point of time each was the same with the same *third* term, the *feria septima* of the same Hebdomadal Cycle. It follows that, just at this moment, when the xxxvth of our Julian Types in the regular order of such Types from the first was entering the Tables, the Julian Correction of the Dictator Cæsar was entering them also in a state of absolute coincidence with it; for it must now be clear that, under such circumstances as these, there was no difference except in name between the first year of our xxxvth Type, reckoned from January 1 at midnight A. D. 225, and the 270th year of the Julian Correction, reckoned from the Kalends of January U.C. 978. And, if there was no difference between them at that time, there can have been none from that time to the present day. What therefore we have repeatedly asserted, viz. That the proper Julian Type of our Fasti at the proper point of time passed into the actual Correction of the Dictator Cæsar, or *vice versa* that the proper course and succession even of our Julian Types was taken up at the proper point of time and continued ever after by the actual Roman and Julian Correction of Cæsar, is thus demonstratively proved to have been true. There was no real difference between them A.D. 225 and U.C. 978 respectively; and if there was none at that time it is impossible that there can have been any since that time.

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[u] See Vol. iv. p. 308 sqq. of this Work.

To revert then to the difficulty which we began with proposing; viz. That one and the same year in the same constant succession of Julian time should have been apparently both a common year and a leap-year: we freely admit that of one and the same year in one and the same succession of this kind that must have been impossible; but not even of one and the same year in two distinct successions of that kind, into each of which it might be entering at once. We may safely put it to the judgment of any candid and reasonable mind whether there would be any inconsistency much less impossibility in the 4228th year of the Julian time of our Tables, A. D. 224—225, in its proper succession being a common year, and the 269th year of the Julian Æra, U. C. 977—978, in its proper succession also being a leap-year, even though those years in other respects coincided, and were the same. It is certain that the 4228th year of the former succession, from December 31 A. D. 223 to January 1 A. D. 225, did coincide with the 269th of the latter, from the Kalends of January U. C. 977 to the Kalends of January U. C. 978. What then, if the former was *de facto* a common year in its proper succession, and the latter was *de facto* a leap-year in its proper succession also—if neither was both a common year and a leap-year in its own succession at once?

Now this is precisely the distinction which actually held good between them at this very point of time. It is certain (from testimony extant to the matter of fact at the time) that the 269th year in the Roman and Julian Correction, U. C. 977, was leap-year, and had the usual Roman and Julian Bissextile day: it is equally certain that some one Julian year in our Tables, between December 30 B. C. 46 and January 1 A. D. 225, must have been a common year which should otherwise have been a leap-year: and it is not less so that this *one* year must have been the very last year of our xxxivth Julian Type, from January 1 at midnight A. D. 224 to January 1 at midnight A. D. 225. The equation of the sum of noctidiurnal time, contained in the 269 Roman and Julian years which were comprehended between the Kalends of January U. C. 709 and the Kalends of January U. C. 978, to the sum of the same, contained in the 269 Julian years of our Tables from December 30 B. C. 46 to January 1 A. D. 225, (an equation instituted and proposed in the proper part of the ensuing Work[x],) is demonstrative of *this* fact; viz. That there was on the whole *one* day more in the former than in the latter: the ultimate cause of which excess from the nature of the case could be nothing but the fact that there was on the whole *one* leap-day more in the former than in the latter. And the explanation of this distinction also is ultimately resolvable into no fact but *this;* That the last of the years in the Roman succession in question, the 269th year of the Julian Æra at Rome, U. C. 977, had the usual leap-day; but the last year in the corresponding succession of the Julian time of our Tables, A. D. 224—225, had not. Nor is it less certain that, if this distinction had not held good between the last year of each of these two successions respectively, the proper Roman and Julian Correction could not have been identified at the proper point of time with the proper Julian Type of our Fasti. If the Kalends of January U. C. 977 were falling on December 31 in the style of our Tables, A. D. 223, and the style of our Tables at this time underwent no change, (i. e. A. D. 223—224 was leap-year in our Tables, as much as U. C. 977,) then the Kalends of January U. C. 978 must have been falling on December 31 A. D. 224: though we know from contemporary testimony that they were actually falling at that time on January 1 A. D. 225.

It *may* then be true, or rather it *must* be true, of this one year, A. D. 224–225, that in the actual administration of the Julian time of our Tables it was a common year even when, according to the law of the cycle in our Fasti themselves, it ought to have been a leap-year; but it is equally certain that this anomaly was peculiar to it, and holds good of no other, under the same or similar circumstances, before or after it:

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[x] Vol. iv. 343 sqq. note.

and it is not less so that even the anomaly peculiar to this one year served a most important purpose, which could not have been served without it; that of identifying the proper Julian time of our Fasti, brought down according to one and the same law of succession from the beginning of things, just at the egress of the xxxivth Type and just at the ingress of the xxxvth, with the proper Roman and Julian time of the Correction of Cæsar. And meanwhile the leap-day, required at that point of time even in the Julian cycle of the Tables from the first until then, was supplied *de facto* by the presence of such a day in the Julian Correction of the time being; which the very next year, and by virtue of this distinction itself more than of anything else, became identical with the actual Julian Type of the Tables.

Again, it is an obvious inference from these premises that this Roman and Julian year, U. C. 977, reckoned from the Kalends of January, must have been just as competent to represent the *last* year of our xxxivth Julian Type, as the next Roman and Julian year, U. C. 978, similarly reckoned, to represent the *first* year of our xxxvth. And this Roman year it appears had the usual leap-day, though the last year of our xxxivth Type had not. It is therefore a case in point, to illustrate what we have often asserted; viz. That even in the extreme case of the egress of one of our Julian Types and of the ingress of the next, when a certain year in the general succession appears to become common, which in the regular order of the cycle of leap-year was bound to have been a leap-year, there is still in reality a *leap-day*:—but a leap-day supplied by the Type which is coming in, not by that which is going out; just as in this instance one was supplied by the actual Julian Type of the Roman Correction, analogous at this point of time in all essential respects to our xxxvth Julian Type, and ready to enter our Tables and to take the place of the xxxivth, along with this, therein.

Again, it cannot fail to be observed that, if noctidiurnal and annual Julian time even in our Tables was carried on from A. D. 225 forwards in the form of the actual Roman Correction such as it was at that time; its proper epoch in its own style at the time must have been the Kalends of January. Now this term, the Kalends of January, though nominally always the same, and always intended of the same thing, viz. the first day of the Roman year for the time being; in its Julian sense and meaning was very ambiguous, and very different at one time from what it was at another. In the style of the Calendar of Numa, who first invented that name for the first day of the Roman year, and in the first year of his Cycle, its Julian meaning was February 17. In that of the Decemviral Correction, and in the first year of its proper Cycle also, it was December 29. In the Irregular form of the Decemviral Correction, there was no Julian term which it was not *a priori* capable of denoting; and in the last year of the Irregular Calendar, (the year of Confusion as it is called,) its actual Julian meaning was October 11. And even in the Julian Correction itself for 269 years it had no fixed and invariable Julian sense. It might denote any one Julian term between December 30 and January 3 on the one hand, and between December 30 and December 28 on the other. If then between U.C. 709 and U.C. 978, B.C. 45 and A.D. 225, it ever denoted January 1, it must have been *per accidens;* and if, U.C. 978 A.D. 225, it was actually denoting January 1, it must have been *per accidens:* and if it has continued, or would have continued, to denote January 1 from that time down to the present day, even that must have been *per accidens.* The meaning of this is That it was the *actual* administration of the Roman and Julian Calendar, regular or irregular as it might be, from U.C. 709 to U.C. 978, which made the Kalends of January U.C. 978 *de facto* the same with January 1; and it has been the actual administration of the same Calendar on a regular principle, and according to the proper Julian rule, from U.C. 978 to the present day, which has kept them attached to January 1 down to the present day.

Let the reader then attend to the fact that the Kalends of January U.C. 977 fell on December 31 (A.D. 223) in the *last* year of the xxxivth Type of our Tables; and both on the *feria quinta.* Consequently, had A.D. 224 been a leap-year as well as U.C. 977, the Kalends of January U.C. 978 must again have fallen on December 31 (A.D. 224) in the *first* year of our xxxvth Type; and both on the *feria septima.* Now, with regard to these two days and in these two years respectively, the actual state of the case was this; that the Kalends of January U. C. 978 did really fall on the *feria septima* (as they were bound to do, if the Kalends of January U. C. 977 really fell on the *feria quinta*), but December 31 A. D. 224 fell on the *feria sexta*, and January 1 only A. D. 225 fell on the *feria septima.* If so, though the Kalends of January U. C. 977 in their proper Julian style at that time corresponded to December 31; yet the Kalends of January U. C. 978 in *their* proper Julian style at *that* time also corresponded not to December 31, but to January 1.

We see then that, in two consecutive years of the same administration of Julian time at Rome, the same Roman term, the Kalends of January, corresponded to two different Julian terms in the Julian style of our Tables, December 31 and January 1 respectively. But we also see that this was the case only in the two Julian years of the Julian succession of our Tables in general which preceded and followed respectively in the transition of the Julian time of the Tables from one of its Types to another; from the *last* year of the xxxivth Type to the *first* of the xxxvth. The Kalends of January U. C. 977 corresponded to December 31 (A. D. 223) *in the proper Julian style* of the xxxivth Julian Type; and the Kalends of January U. C. 978 corresponded to January 1 (A. D. 225) *in the proper Julian style* of the xxxvth. But suppose the proper Julian style of the last year of the xxxivth Type to have been continued into the first year of the xxxvth. In this case the last year of that Type, A. D. 224, would have been a leap-year, and would have had the regular leap-day. Consequently, December 31 A. D. 223 having been the *feria quinta*, December 31 A. D. 224 must have been the *feria septima.* Consequently also, if the Kalends of January U.C. 977 corresponded to December 31 A. D. 223, the Kalends of January U. C. 978 must have corresponded to December 31 A. D. 224: but still only *in the proper style of the last year of the xxxivth Type, as continued in the first year of the xxxvth.*

We see then that the same Roman term, the Kalends of January, and in the same Roman year, U.C. 978, in the proper Julian style of Type xxxiv must have corresponded to

December 31; and yet *de facto* and in the proper Julian style of Type xxxv corresponded to January 1. From which we cannot but draw the inference that January 1 in the proper Julian style of the xxxvth Type, and in the *first* year of that Type, in every thing but its name was absolutely the same as December 31 in the proper Julian style of the xxxivth Type, and in the last year of that Type. Both January 1 in one of these styles and December 31 in the other at this moment being entirely the same with each of two other things, the Kalends of January in one and the same Roman year and the *feria septima* in the same Hebdomadal Cycle; they must have been the same with each other.

Now this serves to illustrate a very important and most subtle (probably the most important and certainly the most subtle and most recondite) distinction in the administration of the Julian time of our Tables perpetually. We make use of a proper nomenclature in all our Types. There is a *first* day in all, from which every other which enters the same Type takes its rise; and it has a proper name in all, and the proper name and style of this first in each determines that of every other in it also. And this nomenclature is the proper Julian nomenclature; and this name and style of the first day in all is a proper Julian one of its kind: and it is in all either that of January 1 at midnight, according to the strict Julian rule, or that of April 25 at midnight, according to the proper Julian rule of our own Tables, which is in reality that of the proper Julian succession of time from the first.

In each of our Types then there is a *first* day, the radix or epoch of the entire succession of noctidiurnal and annual (in the sense of Julian) time throughout the Type; and in each its name and style is January 1 or April 25 alike. But the case which we have just been considering, (that of the *last* year of our xxxivth Type and of the *first* year of our xxxvth,) is demonstrative that January 1 or April 25, as the proper Julian style of the *first* day of any one of our Types, does not mean the same thing as January 1 or April 25, as the proper Julian style of the *first* day of the next to it; that there is a real difference between them notwithstanding their apparent sameness: and that the test and the index of this difference is the relation of each of these terms, in its proper order and in its proper style in its own Type, to some thing else, altogether independent of both, yet the same in itself and with reference to each perpetually; i.e. the order and course of the Noctidiurnal Cycle in terms of the Hebdomadal, which Chronologers mean by the order and succession of *feriæ*.

The reader will understand this at once, as soon as he is reminded that in a succession of Julian Types like those of our Fasti, which are a constant measure not only of the Cycle of leap-year but also of the Cycle of 28 years which Chronologers call the Solar Cycle, the *first* day of the Type would return to the same *feria* of the Hebdomadal Cycle; and its proper Julian style, if supposed to be always the same both nominally and really, would return with it perpetually. For example, if the first day of our xxxivth Type was the *feria prima* of the Hebdomadal Cycle, the first day of our xxxvth on this principle would be the *feria prima* too; and if the proper Julian style of the first day of each of these Types was January 1 alike, and there was no difference between January 1 as the proper style of the first day of Type xxxiv and January 1 as the proper style of the first day of Type xxxv, then January 1 as the first day of Type xxxiv being the *feria prima*, January 1 as the first day of Type xxxv would be the *feria prima* also.

Now in the first year of Type xxxiv, A.D. 113, Dom. Let. A, as our Tables shew, January 1 at midnight was actually the *feria prima* at midnight; but in the first year of Type xxxv, A.D. 225, Dom. Let. B, as they also shew, January 1 at midnight was not the *feria prima* at midnight: it was the *feria septima* at midnight. And that our Tables are correct in this distinction, that January 1 A.D. 225 did really fall on the *feria septima* not on the *feria prima*, is proved by the fact of which we are rendered cognizant from a totally different quarter, and in a totally different way; viz. that January 1 at this time was the proper Julian style of the Kalends of January at Rome U.C. 978, and that the Kalends of January U.C. 978 actually fell on the *feria septima*, not on the *feria prima*.

What then can we infer from this fact except that the proper Julian style of the *feria prima* at the ingress of this xxxvth Type was January 2, not January 1? and consequently that January 2 in the proper Julian style of this xxxvth Type was now equivalent to January 1 in the proper Julian style of Type xxxiv: or, what amounts to the same thing, that December 31 in the proper Julian style of the last year of the xxxivth Type must have meant just the same thing as January 1 in that of the first year of the xxxvth. December 31 in the proper Julian style of the last year of the xxxivth Type was the *feria septima;* and January 1 in the proper Julian style of the first year of the xxxvth was the *feria septima* also. If so, they must have been the same. There could have been no difference between them except in name.

We learn then from this very clear example of the matter of fact, just at the egress of our xxxivth Type and the ingress of our xxxvth, when the last day of the former in its proper Julian style of December 31 was absolutely identical in every thing but its denomination with the first day of the latter in its proper Julian style of January 1; that down to the time when the actual Julian year first entered our Tables in the shape of the Roman Correction of the Dictator Cæsar, (i. e. in fact, so long as we made use of a series of proleptical and conventional Julian Types, each of which entered our Tables under similar circumstances, and each of which continued in them under similar circumstances for a similar interval of time,) the proper Julian style required by the necessity of the case was carried on through all of them with no change in the language and terms of the style, but with a real and substantial change in its meaning. We learn from this case that the mode in which the proper Julian style of the xxxivth Type was carried on in Type xxxv, remaining nominally indeed the same, but really changed and modified in its meaning to adapt it to the exigencies of a new Type, was this; viz. of retaining indeed the Julian exponent of the first day of Type xxxiv, the same in terms as before, for the proper Julian exponent of that of Type xxxv, but setting it back 24 hours, or one entire *feria*, in the order of the Hebdomadal Cycle at the beginning of the xxxvth, in comparison of what it had been in the same order at the beginning of the xxxivth*. There was a January 1, the nominal Julian exponent of the first day of Type xxxiv; and there is a January 1, the nominal Julian exponent of the first day of Type xxxv: and so far there is apparently no difference between them. But the former, as the Julian exponent of the first Noctidiurnal Cycle in Type xxxiv reduced to its place in the Hebdomadal, denoted the *feria prima;* the latter, as the Julian exponent of the first Noctidiurnal Cycle in Type xxxv similarly reduced to the Hebdomadal, denotes the *feria septima.* So that, under an external appearance of agreement and even of identity between them, there is in reality a very great intrinsic difference; as great at least as there can be between one *feria* of the same Hebdomadal Cycle, and the next in order before it. Nor do we derive our knowledge of this distinction in the real meaning of the same nominal Julian term at this moment from our own Tables merely, but from the matter of fact, otherwise discoverable; viz. that January 1, in the proper Julian style of the first day of the xxxvth Julian Type, was the proper Julian style of the Kalends of January U.C. 978,

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* And here it is very important to observe that, as every Julian term

has a simultaneous relation to each of the three measures of time, the Noctidiurnal (including the Hebdomadal), the Menstrual, the Annual, which enter the Calendar perpetually in conjunction; so every Julian term at a given point of time must denote a certain numerical unit in each of these successions at once, as all the three enter the Calendar in conjunction: first and properly in the Noctidiurnal, secondly and through that in the other two, into each of which the Noctidiurnal enters alike. Now the relation of a given Julian term to the Menstrual and to the Annual Cycle, according to the proper Julian rule, is incapable of change. The first of January for instance must always denote the first day of the month so called, and the first day of the year. It follows that, if a given Julian term, continuing nominally the same perpetually, admits of any real change in its proper Julian meaning; it must be in its relation to the Noctidiurnal Cycle: and as the positive or conventional representative of a certain numerical period of 24 hours in the order of the Noctidiurnal Cycle including the Hebdomadal. Now such a change, in the nature of things, was possible. The Noctidiurnal Cycle (and if that the Hebdomadal also) in itself is infinite. It has neither beginning nor end. It may be supposed to be indefinitely extended either backwards or forwards; and wheresoever, and whensoever, a proper epoch or origin of such a succession may be assumed, a proper Julian term, as the proper Julian style of the first term in the succession, may be supposed to be assumed along with it: and even the *same* Julian term as the proper Julian style of the epoch of different successions of this kind one after another perpetually.

and the Kalends of January U.C. 978 were the *feria septima*. Consequently, that January 1 the first day of the xxxvth Type in its proper Julian style was the *feria septima* also.

Now this example proves in like manner that, in passing from the *last* year of one of these proleptic Types to the *first* of the next, the *first* term in the latter, under its proper Julian style, becomes absolutely equivalent in every respect but that of its name to the *last* term of the former, under its proper Julian style also. For instance, January 1 A. D. 225 in the proper style of Type xxxv was altogether equivalent to December 31 in the proper style of Type xxxiv. Each at that moment was the same thing with the Kalends of January of the same Roman year, (U. C. 978,) and each was the same with the same *feria* of the same Hebdomadal cycle, the *feria septima*. Therefore each at that moment was the same with the other.

It follows that, did we go back to A. M. 1 B. C. 4004, the beginning of the entire succession of these Types, and assume the ingress of the first, agreeably to the proper rule of our Tables, April 25 the *feria prima* at midnight; we should be bound to assume the ingress of the second April 25, yet just 24 hours in the order of *feriæ* behind that of the first; i. e. April 25 the *feria septima* at midnight: and the ingress of the third April 25, just 48 hours in the order of feriæ behind that of the first, 24 hours in the same order behind that of the second; April 25 the *feria sexta* at midnight: and so on perpetually; exactly in unison with the scheme and succession of such Types actually exhibited in our Tables. It follows too that, if the proper Julian style of the first day of the first of these Types was to be April 25, and that of the last April 24; and the style of all these Types was to be Julian alike, and Julian the same in terms alike; the first day of all, in its proper Julian style, would be April 25 alike, and the last day of all in the same would be April 24 alike: but it would also follow that April 25, as the proper Julian style of the *first* day of the *second* Type, would be virtually the same with April 24, as the proper Julian style of the *last* day of the first Type; each being at that time the same with the *feria septima* of the same Hebdomadal cycle: and April

25, as the proper style of the *first* day of the third Type, would be virtually the same with April 23, as the proper style of the *last day but one* of the first Type; each being at that moment the same with the same *feria sexta:* and so on in proportion perpetually.

It follows under such circumstances that, did we think fit to retain the proper Julian style of a preceding Type along with that of the next in order to it; it might be retained: and the two styles might go on concurrently through the next Type, differing one from the other only as the proper Julian style at present differs from the proper Gregorian. It has been seen that, just at the egress of Type xxxiv and just at the ingress of Type xxxv, December 31 in the proper Julian style of the former and January 1 in that of the latter, in every thing but name, were the same; each being the same with the Kalends of January U.C. 978, and each being the same with the *feria septima* of the Hebdomadal cycle. That is, the relation between them at this point of time was exactly that of a given Julian term to the corresponding Gregorian one at present; which every one knows to be that of a real agreement under a nominal disagreement: the test and criterion of which is the place of each, at one and the same point of time, in the Noctidiurnal succession measured in a similar manner by the Hebdomadal, (i.e. in the cycle of *feriæ*,) perpetually. It is evident too that the proper *Julian* term in this case was December 31, and the proper *Gregorian* one was January 1; consequently that the proper Julian style of a preceding Type, carried on in a succeeding one, continuing Julian of the same kind as before, that of a succeeding one in its proper relation to that of the preceding would become the proper Gregorian corresponding to the proper Julian of a certain kind.

The distinctions thus pointed out in the Julian time of our Tables, and in its administration and decursus perpetually, are directly available for the explanation of the phenomena of the Equable time of our Tables also; which at first sight are well calculated to occasion some perplexity. For though we admit into our Tables two different forms of Equable

Noctidiurnal and Annual time perpetually, Cyclical equable and Nabonassarian equable, yet, as we incorporate both with the same Noctidiurnal and Annual succession in the sense of Julian, and we refer both to the same Noctidiurnal and Annual succession in the sense of Julian, perpetually; it might be expected *a priori* that both would recede in this succession according to the same law perpetually, and that law such as is prescribed by the nature of things in the constant comparison of equable annual time with mean or actual Julian: i. e. *one* day every *four* years, or every cycle of the Julian leap-year. And it will be seen that even in our Tables Nabonassarian equable time does fall back on mean or actual Julian at this rate of *one* day every *four* years perpetually; and that there is no exception to the operation of the law in question, in this particular instance of its application, from the beginning to the end of the Tables. But with respect to the Cyclical equable time of the Tables in constant comparison with the Julian; the state of the case throughout the Tables is this: That for a certain length of time it drops or descends in the Julian, in each of our Types, according to the same law and just at the same rate as the Nabonassarian; i. e. *one* day every *four* years, or every cycle of leap-year: but that at a stated time in every Type and *once* in every Type it appears to stand still for *eight* years in sequence (over one complete cycle of leap-year) before it begins to descend again according to the same law and at the same rate as before.

But if the reader will take notice, he will see that this time is precisely that when the Julian style of our Types is itself undergoing a *change;* i. e. when one Julian Type is just leaving the Tables and another is just coming into them: consequently, when a given Julian term in the proper style of the succeeding Type is becoming exactly equivalent in every thing but name to the next lower term in the proper style of the preceding Type. Under such circumstances, a moment's reflection will convince him that though the Cyclical equable time of the Tables, as referrible to the Julian of the Tables perpetually, may appear to stand still at these times; it is not in reality standing still at these times more than at any before. It is exhibiting no new phenomenon, it is beginning to be subject to no new law, at these times in particular. It is continuing the same in itself, and with respect to every thing else with which it had been constantly compared until then before. That which is really undergoing a change at these times is the Julian time of the Tables, yet without any alteration in the style; the consequence of which is that the Cyclical equable, which continues the same both in itself and in its proper style perpetually, stands still at this moment in the style of the Type which is coming in, but drops and descends even now just the same as ever before in that of the Type which is going out.

Take for example the case of the egress of the xxxivth Julian Type and of the ingress of the xxxvth. In the 108th year of the xxxivth Type the Cyclical Thoth at midnight stands in the Tables at par with July 6 at midnight A. D. 220; and in the first year of the xxxvth Type (reckoned from March 1 at midnight A. D. 224) it still stands at par with July 6 at midnight. That is, it appears to have stood still in terms of the Julian notation of itself over one complete cycle of leap-year. But, after what has been explained, it will now be readily comprehended that July 6 in the proper style of Type xxxv is absolutely the same except in its name with July 5 in the proper style of Type xxxiv. And this is confirmed by the fact that July 5 A. D. 224 in the proper style of Type xxxiv was the same *feria* of the Hebdomadal cycle as July 6 the same year in the proper style of Type xxxv; and both were the *feria tertia*. It is manifest therefore that, even in this extreme case of its transition from the *last* year of the xxxivth Julian Type to the *first* year of the xxxvth, Cyclical equable time did not stand still in the proper Julian style of the xxxivth Type; i. e. of the Type to which it had been referred all along until then: it dropt at this moment in the style of that Type from July 6 at midnight to July 5 at midnight, as it would always have been bound to do. The real anomaly was that, just at this moment, July 5 at midnight in the proper style of that Type began to be called, and to pass current for, July 6 at midnight in the proper style of the next to it: and that was an anomaly which, as every one must see, did not affect the Cyclical equable time of the Tables, but simply the Julian.

As to the Nabonassarian equable time of the Tables, and the mode in which that was affected under these circumstances in particular; in the 108th year of the xxxivth Julian Type according to the Julian rule it stood at par with June 29 at midnight A. D. 220: and in the first year of the xxxvth, reckoned from March 1 A. D. 224, it stands at par with June 28 at midnight. That is, it has dropt apparently one day as usual from June 29 at midnight to June 28 at midnight, in one cycle of leap-year, A. D. 220—224; and therefore it seems to have exhibited no new phenomenon: but whether it has really undergone no change must not be determined by appearances merely. The truth is that the Nabonassarian equable time of our Tables bears precisely the same relation to the Cyclical equable as the Julian time of all our Types later than the first to the Julian time of the first; and as the Julian time of our Tables is carried on through all these Types later than the first, by retaining the style of the first in all, but setting back the first day of each in its turn, after the first, 24 hours in the order of the Noctidiurnal cycle and in the order of the Hebdomadal perpetually: so is it with the equable time of the Tables through successive Nabonassarian Types, in constant conjunction with one and the same Type of the Cyclical. That too is carried on by retaining the style of the first such Type in all the rest, but setting back the first day of successive Types, after the first, one term in the order of the Noctidiurnal cycle and one term in the order of *feriæ* perpetually.

Now to apply this distinction to the present case of the transition of the xxxivth Nabonassarian Type into the xxxvth. At the beginning of this xxxivth Type the Nabonassarian Thoth stood at par with July 26 at midnight A. D. 113. The length of the Period of this Type was 112 years; and in 112 equable years the Hebdomadal epact is 0: and a given equable date which coincided with a certain *feria* at the beginning of one such Period would be bound to coincide with it also at the beginning of the next. The actual state of the case in the present instance was this. Thoth 1 of Nab. A. D. 113 coincided with July 26 at midnight; and both with the *feria quarta*. Thoth 1 of Nab. A.D. 225 coincided with June 28 at midnight; and both with the *feria tertia*. That is, the same equable term in the Nabonassarian style of such terms, Thoth 1 of Nab. in the transition from the xxxivth Nabonassarian Type to the xxxvth did not return to the *feria* of ingress of this xxxivth Type, but to the *feria* next before it: and after what has been explained that will appear to have been only what it ought to be; and precisely the same thing in this case, *mutatis mutandis*, as in the parallel case of the transition of the Julian time of the Tables from the xxxivth Type to the xxxvth also.

We may learn however from these explanations also that, though the Equable time of our Tables in the sense of Cyclical even at these times undergoes no change, the Equable in the sense of the Nabonassarian undergoes one greater than usual; and, though it appears to descend only one day in every cycle of leap-year perpetually, it does in reality at these particular times descend two days. If the Nabonassarian Thoth in the 108th year of the xxxivth Type stood at par with June 29 at midnight A. D. 220, and in the first year of Type xxxv stands at par with June 28 at midnight A. D. 224; and if June 28 at midnight A. D. 224 in the Julian style of Type xxxv was really equivalent to June 27 at midnight in that of Type xxxiv; what can be inferred from these facts except that the Nabonassarian Thoth in the course of these four years from A. D. 220 to A. D. 224 in the style of the xxxivth Type has dropt from June 29 to June 27? i. e. two days instead of one. And that is proved to have been the case by the *feria* of the Thoth in question at each of these times respectively. In the 108th year of the xxxivth Type it was the *feria sexta*; in the first year of the xxxvth reckoned from March 1 at midnight A. D. 224 it was the *feria secunda*: and yet, as the number of equable years between was four, if there had been no recession greater than usual it must have been the *feria tertia*.

It is evident therefore that at such times as these, while Cyclical equable time recedes one day in the style of the preexisting Julian Type, Nabonassarian equable recedes two days; or, while Cyclical equable in the style of a new Type stands still for one cycle of leap-year, Nabonassarian in the style of this Type recedes one day as usual: and yet in maintaining the proper relation of Nabonassarian equable time to Cyclical perpetually the effect is just the same in either case;

viz. that Nabonassarian equable time in one Type after another shall fall back on Cyclical neither more nor less than one day, in the sense of one *feria*, perpetually. Accordingly, at the ingress of Type xxxiv the first of Thoth of Nab. was corresponding to Mesore 29 Cyc. and both to July 26th the *feria quarta*; and at the ingress of Type xxxv it is seen to be corresponding to Mesore 28 Cyc. and both to June 28 the *feria tertia*. That is, it has fallen back, in the course of this Type, one day in the order of the equable notation, and one *feria* in the order of the Hebdomadal cycle, and no more; just as it was bound to do: and yet, as we have shewn, in the order of the Julian notation, in the proper style of Type xxxiv continued into Type xxxv, it has fallen back one term more than it would seem to have been bound to do; viz. from July 26 at midnight to June 27 at midnight—29 days in all: though the length of the Period of the Type itself was 112 years, in which the recession, at the rate of one day in four years, could not be more than 28 days.

And this being the case with the succession both of the Julian and of the Equable time of the Tables perpetually; it furnishes all the explanation which can be desired of a very important distinction, the fact of which was often asserted in the former part of this Work[y], and is often reiterated in this second part: and the proofs of which were frequently produced before, and will be repeatedly produced again; but the rationale or principle of which is supplied by the preceding observations. This distinction is that in the constant comparison of Equable and Julian time, so long as a variable Type of Julian, and a variable Type of Equable in the form of Nabonassarian, continue to be used in the Tables conjointly; if an Equable and Cyclical date is given in terms perpetually, it rises in the Julian style of such dates one day for every Type: if a Julian date is given in terms and is nominally always the same, it descends in the order of the Equable and Cyclical notation, one day for every Type also.

Every one must now perceive, that these two laws are virtually the same, one in reference to Julian time, the other in reference to Cyclical Equable; and that each is a necessary consequence of what has just been pointed out: viz. that Julian time in a succession of variable Types must recede 24 hours in the order of the Noctidiurnal cycle, and one *feria* in the order of the Hebdomadal, from Period to Period; yet without any change in the Julian style of such cycles or such *feriæ* from Period to Period: while Cyclical Equable time must remain the same with itself from one Period to another perpetually. Consequently the same Cyclical term must rise one number in the order of *feriæ*, and in the order of the Julian style of such *feriæ*, for every Period; and the same Julian term must descend one number in the order of *feriæ*, and in the Cyclical style of such *feriæ*, for every Period. And, for the same reason, a given Nabonassarian term must drop one number in the Noctidiurnal cycle, one *feria* in the Hebdomadal, one day in the Cyclical Equable style, from Period to Period also. Nabonassarian time and Julian in this respect (as both referred to Cyclical) are subject to the same laws. They are always the same relatively to each other; and *mutatis mutandis* they are always the same relatively to anything else, to which both are referrible in common, and to which each is referred at once *.

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[y] See for example vol. ii. of the former Work, p. 523 sqq.

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* The distinction in question is so obviously deducible from the preceding premises, and is so clearly illustrated by them, that it stands in no need of any further elucidation. It would however be most plainly ascertained to hold good by tracing the succession of Equable in Julian time, or, *vice versa*, that of Julian in Equable, through the Period of 1461 years of the former, or 1460 years of the latter, which are exactly equivalent one to the other.

In the Julian Period of 1460 years there could not be fewer than *eleven* changes of the variable Julian Type of the Tables; though there could not be more. It follows that, if the Cyclical equable epoch of the first of these Periods was Thoth 1 at midnight, and the Julian was April 25 at midnight; the Cyclical epoch of the second would be still Thoth 1 at midnight, but its Julian epoch in the proper Julian style of all our Types would be April 25 *plus* 11 days more at midnight; i. e. May 6 at midnight. That is, the same Cyclical term, Thoth 1, which at the beginning of the first of these Periods stood at par with April 25, at the beginning of the second would stand at par with May 6. The inspection of our Tables will shew that such was actually the case. The first of these Periods being assumed to have begun A. M. 1 B. C. 4004 Æra Cyc. 1, the second is seen to have begun A. M. 1461 B. C. 2544 Æra Cyc. 1462; and

Another very important inference from the facts of this case of the egress of the xxxivth Type and the ingress of the

the first day of the Cyclical Thoth Æra Cyc. 1 being assumed to have been April 25 at midnight, Æra Cyc. 1462 it is seen to have been May 6 at midnight.

Again, if the Julian date of the Period is assumed to be April 25 at midnight perpetually; and April 25 at the beginning of the first such Period corresponded to Thoth 1 Cyclical; at the beginning of the second Period it would be found corresponding not to Thoth 1 Cyclical, but to Thoth 1 *minus* 11 days; i. e. to Mesore 25 Cyclical. The inspection of the Tables will shew that too to have been the case: for Thoth 1 Æra Cyc. 1462 answering to May 6 A. M. 1461 B. C. 2544; Mesore 25 Æra Cyc. 1461 must have answered to April 25 A. M. 1461 B. C. 2544.

The Cyclical date of the Period then, Thoth 1, considered as given in terms, in the course of one Period of this kind is thus seen to have risen eleven days in terms of the Julian; i. e. from April 25 at midnight to May 6 at midnight: and the Julian, April 25, considered as given in like manner, is seen to have dropt eleven days in terms of the Cyclical, from Thoth 1 at midnight to Mesore 25 at midnight. But as to the Nabonassarian; if it was Mesore 10 at midnight = April 25 at midnight at the beginning of the first of these Periods, it is still Mesore 10 at midnight = April 25 at midnight at the beginning of the second: i. e. Nabonassarian equable time has undergone no change in its original relation to Julian in the course of one of these Periods. But as to its relation to Cyclical equable; Mesore 10 of Nab. at midnight, as = April 25 at midnight, at the beginning of the first of these Periods corresponded to Thoth 1 Cyclical at midnight: Mesore 10 of Nab. at midnight, as = April 25 at midnight, at the beginning of the second is now corresponding to Mesore 25 Cyclical at midnight. That is, Nabonassarian equable time, though continuing the same in its relation to Julian all through one of these Periods, has dropt eleven terms on its original relation to Cyclical, in the course of one such Period.

And as the explanation of these phenomena is the fact that, in the course of this one Period of 1460 Julian years and 1461 equable years, the proper Julian style of the Tables, though continuing the same in itself, has receded eleven terms in the order of the Noctidiurnal cycle, and in the order of *feriæ;* it follows that May 6 in the style of the twelfth Julian Type at the ingress of the second Period is exactly equivalent, except in name, to April 25 in the style of the first Type at the ingress of the first Period: and that Thoth 1 Cyclical, the nominal Cyclical date of both Periods, is the same with each in its proper style alike. And this is confirmed by the Hebdomadal character of each of these terms, and at each of these times, respectively. In the Equable Period of 1461 years the Hebdomadal epact is 5. Hence, if Thoth 1 at the beginning of the first such Period was the *feria prima*, at the beginning of the second it would be the *feria sexta*. And such was its Hebdomadal character Æra Cyc.

xxxvth is *this;* That, if nothing took place at the egress and ingress of these two Types in particular, which had not taken place at the egress and ingress of every Type before them, it follows from what took place in this instance that, whatsoever the date of the actual ingress of a particular Type into the Tables may be, from the moment of its entering the Tables in its proper order of succession, it is carried back to the beginning of the entire series of Types itself, and is put into possession of the Tables from the first: as much as if there had never been any other from the beginning of the series down to the point of time in question, but this one. It is constituted by its admission into the Tables in its proper order of time the only form of Julian time which can be supposed to have been in existence in constant connection with Natural, from the beginning of things down to the time when it actually entered the Tables; as well as the only one which can continue to be recognized as having an actual existence in that state of relation to Natural, as long as it continues in possession of the Tables.

1462. In the Julian Period of 1460 years the epact is also 5. Hence, if April 25 in the style of the first Type at the beginning of the first such Period was the *feria prima ;* at the beginning of the second Period and in the *same* style it would be the *feria sexta :* and as that was the Hebdomadal character of May 6 at the same point of time, in the style of the xiith Type, and that of Thoth 1 Cyclical as the proper Cyclical date of this second Period ; it follows that April 25 in the style of the first Type, and May 6 in the style of the twelfth, at this moment could not have differed, and that Thoth 1 Cyclical at the same point of time might have been represented by either alike.

And this would be a case in point to prove that whatsoever changes may take place in the real intrinsic meaning of the different terms in the common Julian style of all our Types, with none in the apparent or outward expression of each; no change either real or apparent takes place in that of those of the Cyclical perpetually. We might call the first Julian term at the ingress of the second Period of 1460 years May 6 in the style of the twelfth Type, or April 25 in that of the first; but it would be Thoth 1 Cyclical and the *feria sexta* of the Hebdomadal cycle in either case alike. And this is a distinction which was always to have been expected *a priori*, from the nature of the Equable year itself; which as merely consisting of a certain number of Noctidiurnal cycles is independent of every thing but the simple succession of day and night, either in itself, or in a constant order of *feriæ*.

This inference we say is justly to be drawn, concerning the state of the case in every preceding instance of the same kind, from the analogy of what began to hold good at the ingress of the xxxvth Julian Type; and has continued to do so ever since. No one can require to be told that, whosoever has occasion for a proper measure of Noctidiurnal and Annual time, always the same with itself, and always agreeable to that which is actually in use at present, (and in particular Chronologers, Historians, and Astronomers,) for any purpose which concerns the past, carries back one and the same Type of both; the *Julian*, which exists *de facto* at present, and as it exists at present: and it has been demonstrated of this in particular that it is precisely the same which having once entered our Tables, whether in the shape of our xxxvth Julian Type, or in that of the actual Roman and Julian Correction of the Dictator Cæsar, on the first of March at midnight A. D. 224, or on the first of January at midnight A.D. 225, has been transmitted in that shape down to the present day. Why then is *this* done at present, except because this particular Type having once entered and once obtained possession of our Tables, and at that particular time, has continued in possession of them ever since, and is still in possession of them at the present day? For it was peculiar to this xxxvth Type to enter our Tables as an actual one of its kind; i. e. to be identical at that point of time with an actual one of its kind, the Roman Correction of Cæsar. All before *this* were *hypothetical* and *positive* of the same kind. And it is peculiar to *this* to be still an actual one of the proper kind; because it has never ceased to be identical with this Roman Correction, since it first became so: and *that* has never ceased to be an actual Type of its kind.

It follows that *this* is the Type, which in the form of the Roman and Julian Correction of Cæsar, *mutatis mutandis*, (i. e. differing merely in accidental circumstances,) has come down to our own times; the Type which is every where in use where the Julian year, properly so called, is also in use: the Type which is meant by the Julian year of Chronology as much as by the Julian year actually in use. It follows that *this* too is the Type which, for all chronological purposes concerning the future, is carried forwards to any extent; and for all similar purposes concerning the past is carried back to any extent. And yet if even *this*, in its proper place in the order of succession and of the order of time, first entered the Tables only A.D. 224 or A.D. 225, on what principle we again demand can these things be done, except because, from the moment when *this* Type *de facto* entered the Tables, it became *de facto* the sole and exclusive possessor of them, both for the future and also for the past? for the *future*, because no other, later than this, could ever get possession of the Tables in its stead: for the *past*, from the reason of things, (because every Type, which has a right to the Tables *de facto* for the present and for the future, has a right to them also for the past, until it leaves the Tables at least,) as much as by virtue of the general and positive rule of the succession, which puts every Type in possession of the Tables from the first, as soon as it actually enters them. It may be considered therefore an universal law of this succession of Julian Types, that as each in its turn comes into actual use so each in its turn is to be treated as if it had been actually in use from the first. As soon as any of them begins to serve *de facto* for the present, it begins to serve *de facto* for the past also; and as long as it continues to serve for the present, it continues to serve for the past *.

If then we go back with this entire succession of Julian annual time in conjunction with Natural annual to the beginning of each in our system, the first year of the Mosaic

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* It can hardly be necessary to explain that what we mean, by saying that each of our Types as soon as it enters the Tables in its proper order of time is immediately set back to the beginning as if it had been the only one in use from the first, is *this*; That each of these Types in its proper order of time, and while it was actually itself in being, supplied the proper fixed and invariable form or type of Julian time which might be required for any purpose concerning the past. An astronomer for instance or a chronologer, who, as living in the time of the xxxvth Type, for all such purposes now carries back the Julian time of that Type, had he been living under the xxxivth Type, must have carried back, for any similar purpose, the Julian time of that Type; one who lived under the xxxiiid must have carried back in like manner the Julian time of that Type: and so on.

Creation, A. M. 1 B. C. 4004; it will be understood and admitted, after what has been explained, that there will still be only one proper Julian epoch of the succession, either April 25 at midnight, the Julian date of the first mean vernal ingress of the system for the proper meridian, according to the Julian rule of our Fasti; or January 1 at midnight, the 115th day before it, according to the proper Julian rule. Let us be permitted to assume that it will be most properly April 25 at midnight. *This* Julian epoch of April 25, so assumed, in *terms* at least must be ever after invariable. It will be the proper Julian style not only of the *first* period of 24 hours of mean solar time, the first Noctidiurnal Cycle, the first *feria* of the Hebdomadal Cycle, which will enter the Tables at the ingress of the *first* Julian Type; but the proper Julian style of the first period of 24 hours, the first Noctidiurnal Cycle, the first *feria* of the Hebdomadal Cycle, which will enter the Tables at the ingress of the *second* Type. The style of the *first* will be that of the *last;* and *vice versa:* and the style of each set back to the beginning, in the manner which has just been explained, in the ascending order of the proper Julian notation for successive Noctidiurnal cycles, successive Hebdomadal *feriæ,* will run on April 25, 26, 27, &c. perpetually; and in the descending order, April 25, 24, 23, &c. And yet, under all this nominal and seeming agreement of the proper Julian style of any one Type with that of the next after it or that of the next before it, there will be a real and substantial difference; as real and substantial as that of one numerical period of 24 hours of mean solar time, in a constant succession of such periods, from the next after it, or the next before it, or that of one numerical term in the order of such periods, measured by sevens at a time perpetually, from the one after it or the one before it.

The meaning of this distinction is that, in a constant succession of Julian Types, each of which is intended to represent the same Natural Antitype (the same Natural idea) under the same circumstances, and for precisely the same or a similar interval of time, all of which consequently come into actual use in rotation, yet each by the positive law of the succession on the first day of this Natural Antitype at the very beginning of things themselves; the proper Julian style of the Feria of ingress of every Type must be April 25 alike, but the Feria of ingress itself in successive Types must be one term lower in the order of *feriæ* perpetually. The proportion of mean Julian annual time to mean Natural annual is such that the same Julian Type cannot represent the same Natural Antitype perpetually. They might be absolutely the same, (or might allowably be assumed to be so,) at the *beginning* of a certain interval of time; and every integral Noctidiurnal cycle in the one at that moment might be the same with every integral Noctidiurnal cycle in the other: but they must become unequal in the course of time, and absolutely incommensurable at last; so much so that the *first* integral Noctidiurnal cycle of the Natural Antitype, reckoned by the same positive rule in that as in the Julian Type, shall now be the same with the *last* integral Noctidiurnal cycle in this Julian Type. And when that has begun to be the case, it is selfevident that, if the Julian Type is still to represent the Natural Antitype exactly in the same manner as before, it must be corrected in some manner or other; and *Correction* in this case means *change*, and the *mode* of the change is that which is suggested by the reason of things, as much as by the actual state of the case at the time: viz. That the *last* integral Noctidiurnal cycle of the Type which has now become out of proportion to its Natural Antitype, and is consequently now about to make way for another which must come into the Tables in its stead, and in the same state of relation to the Natural Antitype as itself at first, should be assumed as the *first* integral Noctidiurnal cycle of the Type which is coming into use in its stead; but under the *proper Julian style of the first* such cycle of the former notwithstanding. It follows that, in a succession of such Types, while the proper Julian style of the Feria of ingress will be the same in each, the Feria of ingress itself will be one term in the order of *feriæ* lower in each perpetually. In the first it will be April 25, the *feria prima*; in the second April 25, the *feria septima*: in the third April 25, the *feria sexta*; and so on: exactly as the reader will see it represented in our Tables, at the ingress of the first Type A. M. 1 B. C. 4004, at that of the second A.M. 113 B.C. 3892, at that of the third A.M. 253 B.C. 3752, and so on, respectively. On this principle, the Feria of ingress of the xxxvth Type, A. M. 4229 A. D. 225, would be

April 25 the *feria secunda* (1–34=1–6=2); and the proper Julian style of the xxxvth Type from the moment when it entered our Tables would be April 25 the *feria secunda* at midnight: and at the beginning of each of its cycles of 28 years it would be April 25 the *feria secunda* at midnight perpetually. And being set back 151 cycles of this kind (i. e. from A. M. 4229 A. D. 225 to A. M. 1 B. C. 4004) it must still be April 25 the *feria secunda* at midnight: and that would be altogether the same at that time as January 1 the *feria septima* at midnight.

Now the first use which may be made of the very important fact thus pointed out, (viz. That every Julian Type of the Tables from the moment when it enters the Tables is *ipso facto* put in possession of the Tables from the first,) is to assign the true *rationale* or explanation of the assertion repeatedly made (paradoxical as it may appear); viz. That the Julian time of our Fasti Catholici never wants either the proper leap-year, or the proper leap-day, at the proper point of time —with that one case of exception only, peculiar to A. D. 224, which has been already indicated. That it never wants the proper leap-year is very evident; for there is no interruption in the cycle of leap-year, (and that the proper Julian cycle of its kind,) in our Tables from first to last. That it does not at stated times (those of the transition of the Julian time of the Tables from one of its Types to the next) want the proper leap-day, even in the regular cycle of the leap-year, at first sight is not so clear.

But if every Type, as soon as it enters the Tables, is as good as carried back to the beginning of the whole succession; every thing peculiar to it, and characteristic of it, in its proper order of time, (its proper Julian style, its proper cycle of leap-year, and its proper Solar Cycle, or cycle of 28 years,) is carried back with it also. There is consequently a 29th of February in the proper Julian style of every Type, and in the proper years of every such Type. The only difference is that in the *first* year of a Type just coming in, reckoned from January 1 at midnight, February 29 in the proper Julian style of that Type is precisely the same thing as February 28 in the proper style of the last year of the old Type, reckoned from March 1 at midnight. There is consequently a *leap-day* even in this extreme case; but it is supplied by the Type which is just coming in, not by that which is just going out. And if even the Type just coming in is *ipso facto* thereby constituted possessor of the Tables from the first; every one must see that the coming in Type, not the outgoing one, just at this moment is that which is bound to supply the *leap-day* in the proper style of the proper Type: for as to the *leap-year* and the *cycle* of *that* year, they are common to both these Types. There is no difference in those respects between any of our Types and the rest.

The next use which we may make of this fact will be to explain a phenomenon, of regular occurrence in the administration of the Natural annual time of our Tables in constant conjunction with the Julian, which is perhaps at first sight as difficult to comprehend as any thing peculiar to them besides; viz. That, while the mean natural equinoxes of the Tables, beginning with April 25 at midnight, descend one number, one term, one day in the regular order of the Julian notation backwards, from Type to Type or Period to Period—and after A. D. 225 as much as before; they descend two terms in the order of *feriæ*, from Period to Period, before A. D. 225, the ingress of Period xxxv, and they descend only one after A. D. 225.

This peculiarity of the Tables is likely at first sight to be considered the most inexplicable of all; and even an anomaly, inconsistent with the regular course and succession of something supposed to be always the same in itself, and with reference to any thing else: such as the mean Natural annual time of the Tables in itself and in constant conjunction with the mean Julian. The explanation of this phenomenon too is derivable from the same matters of fact which we have hitherto been considering: i That every Julian Type which enters the Tables, and at any time, is *ipso facto* set back to the beginning of the entire succession of such Types from the first, and is put in possession of the Tables, with every thing proper to it and characteristic of it, as soon as it comes into actual use, as much as if it only had been in use from the first. ii That the proper Julian style of every Type, set back to the beginning, is April 25 alike. iii That every succeeding Julian Type falls back on the preceding one *feria* in the order of the Hebdomadal cycle. Add to these *three* facts *one* more, necessarily implied in the *first*—viz. That if the Julian time of the Tables exactly as it enters the Tables in the form of any one of our Julian Types, and as soon as it enters the Tables, is at once set back to the beginning; the Natural time of the Tables, with which the Julian is compared perpetually and which the Julian is intended to represent perpetually, is set back with it also, and in a state of identity with it in that form in which it is *de facto* entering the Tables: and you have all the explanation of the phenomenon in question which can be required. And it will be seen to be resolvable into *two* facts, each of them unquestionable *per se;* one, That in a continuous series of Julian Types, carrying on the same succession of Natural time perpetually, every succeeding one must descend one term in the order of *feriæ* on the preceding: the other, that in the constant comparison of the same form or Type of Natural annual time with the same form or Type of Civil annual, like the Julian, the former must recede one day (one period of 24 hours of mean solar time) on the latter, in a certain length of time, perpetually.

With regard to the first of these assumptions it requires no further proof. It has been shewn that in a regular succession of Julian Types, like those of our Fasti, the Feria of ingress must descend one term in the order of *feriæ* for every Type, yet without any change in the Julian style of each. Consequently, the proper style of the first such Feria being April 25 the *feria prima* at midnight, that of the second must be April 25 the *feria septima* at midnight; that of the third must be April 25 the *feria sexta* at midnight: and so on. And this is substantially the same thing as saying that in a constant succession of this kind the *last feria* of the preceding Type becomes the *first feria* of the next in order to it; and it has been shewn that, from the nature of each of those Types, and from their common relation to the same Natural Idea or Antitype, and from the common end and purpose with reference to that which each of them is intended to serve, *this* is only agreeable to the reason of things, and *a priori* always to have been expected. But it would be quite sufficient to establish the assumption, (were there any doubt concerning it,) that such was actually the case at the transition of the xxxivth of these Types into the xxxvth, A. D. 224 or A. D. 225; and is proved to have been so by the testimony of the matter of fact.

With regard to the second assumption; the mean Natural year is a fixed and invariable quantity: and the mean Julian year is a fixed and invariable quantity also. The standard of the latter is 365 days 6 hours, or 365·25 days, of mean solar time perpetually; that of the former, according to the assumptions of our own Fasti, is 365 d. 5 h. 48 m. 50 s. 24 th. or 365·24225 days, of mean solar time perpetually. The proportion of the latter of these standards to the former is such, that the latter must recede on the former at the rate of 11 m. 9 s. 36 th. or 11 m. 9·6 s. or 0·000 775 d. of mean solar time every year; and at the rate of 24 hours of mean solar time as nearly as possible every 129 years: or, according to the positive cyclical rule of our own Fasti, every 112 and every 140 years, as nearly as possible alternately. And as these are the lengths of the proper Julian Periods of our Fasti (112 or 140 years respectively), it follows that, according to the proper proportion of the proper Natural annual time of our Tables to the proper Julian also, the former must recede on the latter at the rate of one day for every Period respectively. Let us see then how these two laws work in conjunction; the law which regulates the descent of the proper Julian time of such a system as this of our Fasti from one Julian Type to another; and the law which regulates the descent of the Natural annual time of the system in the Julian of the system also perpetually.

The operation of the first law is *this;* That the proper Julian time of the system in passing from one of its Types to another drops or descends one *feria* in the retrograde order of the Hebdomadal cycle: and the operation of the second law is this; That the proper Natural time of the system recedes 24 hours of mean solar time, one *feria* also, in the retrograde order of the Hebdomadal cycle, on the proper Julian of the system, for every Julian Period. The operation and effect of both laws in conjunction, with a constant succession of Julian Types of this kind, each of them set back in its turn, as soon as it enters the Tables, to the beginning of the entire succession, and each of them carrying back with it to the beginning its proper Natural Antitype also, must consequently be *this*; That the latter in particular, as supposed to accompany the former from the beginning down to the time when both actually enter the Tables in conjunction, must appear to descend two terms in the order of *feriæ* from Period to Period, though it does in reality descend only one.

Let it be assumed for instance that the proper epoch of the first of these variable Julian Types, and consequently that of the *one* Natural Antitype, or Natural Idea, compared with each perpetually, was April 25 the *feria prima* at midnight. Then, by the first of the above laws, the proper epoch of the second would be April 25 the *feria septima* at midnight. And this Type from the moment of its ingress being set back to the beginning, and its Natural Antitype being set back along with it; and both being supposed to have set out on the *feria septima* at midnight, and both to have gone on together for *one* Period: it is manifest that the Julian Type would still be entering at the ingress of the second Period on the *feria septima* at midnight; but by the operation of the second of the above laws the Natural Antitype must be found entering 24 hours behind it: i. e. on the *feria sexta* at midnight. *This* then must be the proper Feria of ingress of the Natural Antitype at the beginning of the second Period; just on the same principle on which that of the Julian Type of itself at the same point of time is the *feria septima* at midnight. It is *two* terms in the order of *feriæ* lower than its proper Feria of ingress at the beginning of the first Period, the *feria prima* at midnight: but it is just what it ought to be at this time, if its Feria of ingress at first, and in comparison with its proper Julian Type throughout, had been the *feria septima* at midnight. And its proper Julian style at this time is April 24 at midnight, though its proper Julian style at first was April 25 at midnight; because the proper style of the Julian Type from which it is now borrowing its own nomenclature is April 25 also: i. e. the proper style of the first day of this Type, as the same with the *feria septima*, is April 25, and therefore the proper style of the *last* day, as that of the *feria sexta* also, is April 24. In like manner, at the ingress of the third Julian Type, by virtue of the first law, the Feria of ingress must be the *feria sexta* at midnight; and this too being set back to the beginning as before, and its Natural Antitype being set back with it; then after the lapse of two Periods the Feria of ingress of the Julian Type will still be the *feria sexta* at midnight, but by virtue of the second law the Feria of ingress of the Natural Antitype will be *two* periods of 24 hours, (48 hours,) two *feriæ* in the retrograde order of *feriæ*, behind it: that is, the *feria quarta*, not the *feria sexta*. And the proper style of the former just at this moment being April 25 the *feria sexta ;* that of the latter, in conformity to it, just at the same time, must be April 23 the *feria quarta*.

And this state of the case, at the ingress of the third Julian Type or Julian Period, being compared with that which held good at the ingress of the first; the effect will appear to be the same as if the Natural time of the Tables had receded on the Julian *four* terms in the order of *feriæ;* i. e. from the *feria prima* at midnight to the *feria quarta* at midnight: and therefore two terms for each Period. But it will now be seen that this effect is in reality a double one; one half of which is to be set down to the account of the law which regulates the succession of Julian Types one after another perpetually, and determines the proper relation of every succeeding to every preceding one; the other half only to that of the law which rules the descent of mean Natural annual time in mean Julian, the same with mean Natural, perpetually. It must now be evident that the mean Natural annual time of the Tables descends on the mean Julian at the *same* rate perpetually; and *that* the rate defined and prescribed by the relation of the former to the latter *per se : one* period of 24 hours, *one* day, *one feria,* and no more, from Type to Type and Period to Period perpetually. And the ultimate reason of this also is that the mean Natural annual time of the Tables at a given time is virtually compared with, and virtually receding in, one and the same Type of the mean Julian, even from the beginning. It must therefore recede on it at the same rate perpetually, in proportion to the time for which they are both supposed to go on together. The real distinction is that, with a succession of Julian Types, none of which is an actual one of its kind before a certain time, one differs from another even while they are all nominally and apparently the same; one falls back on another 24 hours perpetually: and while these recede at this rate on one another, and the Natural Antitype of all recedes on *any one* of them at the same rate, and on each in its turn from the beginning of all in common, it cannot fail to appear to recede two terms, for every such Type or every Period of such Type, instead of one.

But suppose this recession of the Julian time of the Tables upon itself, one *feria* for every Period, to cease; the recession of the Natural on the Julian two *feriæ* apparently in every Period will determine and cease also. Now the former of these effects took place A. D. 225, when an actual Julian Type, in the shape of the Roman and Julian Correction of the Dictator Cæsar, (altogether the same with that which was required at that time by the law of the succession of our Julian Types themselves,) entered our Tables; and having entered our Tables at that point of time has continued in possession of them down to the present day. It is self-evident that from this moment the *actual* recession of the Julian Annual time of the Tables on itself, *one feria* from Period to Period, must cease; and therefore the *apparent* recession of the Natural annual on the Julian *two feriæ* for every Period must also cease. And this is the true explanation of the seeming inconsistency, which we began with pointing out: viz. That mean Natural annual time before A. D. 225 (the date of the ingress of the xxxvth Julian Type) receded apparently in mean Julian according to *one* law, and after A. D. 225 according to *another*. The truth is that mean Natural annual time never did nor ever could recede on mean Julian according to any law but *one*; the law prescribed by the relation of the one kind of time to the other perpetually: but before A. D. 225 and the ingress of Type xxxv even mean Julian time receded on itself at a certain rate from Period to Period, because it was carried on in a succession of variable Types; after A. D. 225 beginning to be carried on in one and the same form or Type it could recede on itself no longer. It follows that from this time forward too Natural annual time could not even *appear* to recede on Julian at more than its natural rate perpetually; and that Natural annual and Julian annual time in this particular form being set back in conjunction to the beginning, as soon as they began to proceed together in that state of relation to each other, the recession of the former on the latter never was more or less, nor is at present more or less, than the relation of one to the other, and the absolute measure of each *per se*, admits of or prescribes perpetually; that is, one day for every Period.

On this principle, at the epoch of Period xxxv, A. D. 225, the Feria of ingress of the Julian Type ought to be found 34 terms in the order of *feriæ* behind the *feria prima;* i. e. the *feria secunda:* and its proper Julian style ought to be April 25 the *feria secunda:* and the Feria of ingress of the Natural Antitype ought to be found 34 terms in the order of *feriæ* behind the *feria secunda;* i. e. the *feria tertia:* and its proper Julian style ought to be found 34 terms behind April 25; i. e. March 22. On this principle March 22, at the ingress of Period xxxv, should be both the *feria tertia* and the date of the mean vernal equinox. And it will be seen from our Tables, A. D. 225, (the Dom. Let. being B,) that March 22 was actually the *feria tertia:* but it will appear also from them (corrected at least as they are in the Appendix to our Fasti Catholici[z]) that March 22 at the same point of time was not the date of the mean vernal ingress: but that, instead of March 22 the *feria tertia* at that time, the date of this ingress was a Julian term one number higher in the order of the Julian notation and one number higher in the order of *feriæ:* March 23 the *feria quarta.*

Now this difference involves a distinction of very great importance; the explanation of which is the only thing still necessary in order to place this particular law of our Tables in a clear and intelligible light from first to last: and to reconcile the actual state of the case A. D. 225 with our assumptions concerning it until then; and the matter of fact at first with what it must have been ever after, and at present also, if nothing had occurred to interfere with the original consti-

[z] Vol. iv. 536 sqq.

tution and course of things. In order to this explanation we must proceed as follows.

In a succession of variable Julian Types, such as we have hitherto been supposing, the law of the succession, we have seen, is this; That the epoch of every succeeding one is set back 24 hours behind that of the preceding one: or, what amounts to the same thing in effect, the *last* Noctidiurnal cycle in the preceding Type, just at the transition of one into another, is assumed as the *first* in the succeeding one. Such is the law *de facto* established in a succession of Types of this kind. It is a consequence of it that the proportion of one of these Types to another is preserved inviolate from first to last; i. e. the absolute sum of mean solar time, contained in a series of Types of this kind one after another, is kept in a due state of proportion to the absolute sum of the same, contained in the first Type perpetually. For it must be self-evident that the number of days and nights, from the first day of one and the same Julian Type to the first again, must be just equal to the number from the first day of that Type to the last *plus* 1. For example, the number of days from April 25 to April 25 again must be just equal to the number from April 25 to April 24 *plus* 1; and the number from April 25 to April 25 must be just equal to that from April 25 to April 23 *plus* 2: and so on. Substitute in the first of these cases April 25 for April 24, and in the second April 25 for April 23, as differing indeed from either of those terms in name but as the same with it in reality; and in this representation you will have exactly the statement of the relative proportion of our variable Julian Types one to another in succession, or of that of all the rest, later than the first, to the first in particular perpetually, with respect to the actual content of each. The absolute amount of mean solar time, contained in the first, reckoned from its proper epoch to its proper epoch perpetually, is that of the rest also, reckoned from the primary epoch of all in common, (the epoch of the first,) to the proper epoch of each in its turn, *plus* a certain quantity; i. e. so many days and nights as there are terms in the recession of these variable Types one on another in the order of *feriæ*; i. e. in fact as there are Types, and as there are Periods, distinct from the first.

And thus we see that the law, which regulates the succession of these Types and sets back the epoch of every preceding one 24 hours behind that of the preceding, acts also as a means of equalisation among them; in keeping up the proportion of every succeeding one in its proper order of time to the preceding one; and that of all the succeeding in general to that of the first (from which they all set out at first and on which they all depend ever after) in particular. Every one must perceive too that this law of *equalisation* among the different parts of such a succession acts as a principle of *compensation* also; and that if you add the amount of the recession in the order of *feriæ* in a particular instance to the Feria of ingress you recover the Feria of origination: and if you add the amount of the recession in days and nights, accumulated at the epoch of any of these secondary Types, to the sum of mean solar time from the epoch of the whole succession to the epoch of that Type, you recover the absolute sum of mean solar time from the epoch of the whole succession to the epoch of the whole again, up to the ingress of that Type. This would be seen at once, did the style of these secondary Types recede along with the epoch, one term for every Type; i. e. if the style of the first being April 25 the *feria prima*, that of the second was April 24 the *feria septima*, that of the third April 23 the *feria sexta*: and so forth. If there is any obscurity in the process it is due to the fact that, while the epoch recedes one *feria* in successive Types, the style of the epoch remains the same. It is April 25 in the *first*, and it is April 25 in the *last*; and that must make it difficult to distinguish at first sight between the style of successive Types, and clearly to apprehend and bear in mind that April 25 in each of these instances really means a totally different thing: as different at least as the *feria prima* in the constant succession of the Hebdomadal cycle from the *feria septima*, or the *feria septima* from the *feria sexta*, and so on.

The relation then of each of these variable Julian Types to each other, according to the proportion established among them by the nature of things, being such that the absolute sum of mean solar time contained in every preceding one, reckoned from its proper epoch to its proper epoch again, is one period of 24 hours of mean solar time, one cycle of day and night, greater than the similar sum contained in every succeeding one similarly reckoned from its proper epoch to its proper epoch again; and the method prescribed by nature for equalising this inequality, and compensating for this disproportion, among them, and for carrying on one and the same succession of numerical periods of 24 hours, in the order of the Noctidiurnal cycle, in the order of *feriæ*, and in the style of the civil nomenclature for each, after an uniform manner, being simply *this*, of assuming the *last* such period in a preceding Type at the proper point of time as the *first* such period in the next to it, yet calling it by the same name as that of the first such period of the preceding Type: such we say being the established and regular mode of proceeding in the ordinary course of a succession of this kind; did it by any means come to pass that some one of these Types in the natural course of its decursus contained one period of 24 hours of mean solar time (equivalent to one mean cycle of day and night, one mean *feria* of the Hebdomadal cycle) more than usual; What must be done in that case? How must the ordinary relation of one of these Types to another be maintained and kept up as before, in an extraordinary case like that?

It will appear on a little reflection that the ordinary mode of proceeding *mutatis mutandis* would be just as applicable to this case as to any before it; and that no change in the general principle of the equalisation and of the compensation in question would be necessary even in this case further than the following: The *last* period of 24 hours even in the Type which had been subject to this anomaly being still to be designated by the name of the *first*, and therefore being still to be called April 25; to assume this *last* period of 24 hours in the Type by hypothesis so affected, under this name of the *first*, April 25, as the *second* period of 24 hours in the Type which was now succeeding it: and consequently the *last* such period but *one* in the preceding Type, under its corresponding name of April 24, as the *first* in the succeeding one. The change therefore, required or made even in this case, would be simply an extension of the principle always recognized and applied before; and even this extraordinary mode of the application of the principle would differ only *per accidens* from the ordinary. It would assume the *last* day of the preceding Type under its usual style of April 25; but as the *second* day of the succeeding one; and therefore the *last but one* of the preceding under its corresponding style of April 24 as the first of the succeeding one: and it would assume the *feria* of the *last* such period in the preceding Type as that of the *second* in the succeeding; and therefore the *feria* of the *last but one* in the former as the proper *feria* of the *first* in the latter: and consequently it would assume the proper *feria* of ingress of this Type, (now succeeding to one which had been the subject of such an anomaly as we have been supposing,) in its proper Julian style, April 24 on that *feria* at midnight.

Now the anomaly, to which we have thus been alluding as an *hypothetical* affection of some one of these Types in its natural order of succession, was an *actual* affection of one of them in particular. It was the *specific* affection of this succession of Julian Types in *general*, which was produced on one of the number by the two Miracles, the subject of which was the sun, (the solstice of Joshua, and the retrogradation in the time of Hezekiah,) as soon as the joint effect of both was complete[a]. By each of these miracles, an addition of 12 hours was made to the sum of mean solar time ordinarily contained in one of these Types; and an addition of 12 hours, in two distinct cases of this kind, for the sake of argument from the effect may be considered as altogether the same thing with an addition of 24 hours made at once.

It follows that, as soon as the cumulative effect of these two miracles respectively was complete, the particular Julian Type in which that effect took place must have come to contain 24 hours of mean solar time more in proportion than any other before or after it. Some one actual year in that Type must have contained 366 mean days and nights, which would otherwise have contained only 365; or some one actual year 367, which would otherwise have contained only 366: and therefore the whole Period of that Type must have contained 24 hours more than usual. It follows that, in adjusting the next Type to this, yet on the same principle of compensation for the difference between this and the next in order to it, as before, the epoch of the latter must be set back in terms of the former one period of 24 hours of mean solar time, one mean cycle of day and night, one mean Hebdomadal *feria*, one term in the Julian style of such periods, such cycles, such *feriæ* perpetually, *more* than usual; i. e. to April 24 in the style of the preceding Type instead of April 25; and to the *last* numerical period of 24 hours, in the decursus of that Type, *but one*, instead of the *last*; and to the proper *feria* of that *last* period *but one* in its proper Type, instead of that of the *last*.

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[a] Fasti Catholici, i. 237—321. iv. 523—595.

Let us then be permitted to assume that the precise point of time, when the joint effect of these two miracles on the Noctidiurnal and the Annual (in the sense of Julian) succession of time from the first until then was complete, was that of the egress of the xxviith Type of our Fasti and that of the ingress of the xxviiith respectively, A. M. 3333 B. C. 672. At the ingress of Type xxviii, according to the general law of the succession until then, the Feria of ingress was bound to be found 27 terms behind the *feria* of origination, the Feria of ingress of Type i; i. e. the latter having been the *feria prima* at midnight, the former ought to be the *feria secunda* at midnight: and the proper Julian style of this Feria of ingress of the xxviiith Type, according to the analogy of that of every Type before it, would be April 25 the *feria secunda* at midnight. And we have only to look into the Tables of the Fasti Catholici to see that, at this time in particular, A. M. 3333 B. C. 672, that would be altogether agreeable to the matter of fact. The Dominical Letter that year being B, April 25 at midnight, according to the Julian rule, would be the *feria secunda* at midnight. And in an ordinary case of this kind, this last day of Type xxvii under this proper Julian style of April 25, the *feria secunda*, at midnight, would now have become the first day of Type xxviii; and, as the first day of Type xxviii now coming into the Tables in its proper order of time, under this Julian style of April 25 the *feria secunda* at midnight, it would have been carried back to the beginning, and would have been constituted the epoch or radix of the entire succession of Noctidiurnal and Annual (in the sense of Julian) time from the first until then. But under the special circumstances of the case, the *last* day of the xxviith Type, under its proper Julian style at that time of April 25 the *feria secunda* at midnight, could be assumed only as the *second* day of Type xxviii; and no day in the former could now be assumed as the *first* of the latter but the *last* but *one*, under its proper Julian style too, analogous to that of the first, of April 24. It follows that Type xxviii, just entering the Tables at this point of time, being carried back to the beginning and constituted the epochal Type, agreeably to the form which it was actually wearing at this time, its proper style must be carried back with it also; and the epochal or initial term in the entire Julian succession of such terms, in the proper style of this Type and in that of every other dependent on this and derivable from it, in one and the same relation to the order of the Noctidiurnal cycle and to the order of *feriæ* perpetually, must be April 24 the *feria prima* at midnight, and not April 25 the *feria secunda* at midnight.

With respect to the Natural year, which, according to the same general law of the succession, would require to be carried back to the beginning along with this Type; at first sight it might be supposed that, if we were bound to set back the Julian time of the Tables in the form of this Type to April 24 the *feria prima* at midnight, we should be bound to set back the Natural or equinoctial to April 24 the *feria prima* at midnight also; and consequently, if the entire succession of Julian time from this time forward was to be reckoned from April 24 the *feria prima* at midnight, that of Natural or equinoctial was to be so too.

But it is here to be considered that, if no such anomaly as that which we have supposed to characterize the xxviith Type had actually taken place, the proper Julian epoch of the Julian time of the xxviiith Type would not have been the same as it was *de facto*. The Julian date of the ingress, April 25, would have been the same, but the *feria* of the ingress would have been different*. Nor is it by any means a necessary consequence *a priori* that, if the relation of one of our Julian Types to another in a general succession of that kind were to be affected in a certain manner, and to a certain extent, different from usual, that of the one Natural Antitype to all these Julian Types of itself in common would be affected in the same manner and to the same extent also. And though the distinction is a nice and subtle one, it is nevertheless *real*, and founded at bottom on the reason of things; that one and the same anomaly, one and the same instance of departure from the ordinary course of things,

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* The reader will of course comprehend that in this case the xxviiith Type of our Tables would have become the xxviith; and therefore that

the number of steps of descent, either in the order of *feriæ* or in that of the Julian notation, in this case also must have been 26 not 27. It could not possibly be otherwise, according to the cyclical rule of our Julian Periods, if no such anomaly as that of the two miracles had ever happened. In that case, instead of two Periods, each 56 years long respectively, we should have had one Period 112 years in length. According to the alternation of Periods in our Tables, we should have had 11 of 112 years and 15 of 140; 3332 years in all: the exact interval from A.M. 1 B.C. 4004 to A.M. 3333 B.C. 672. Nor could it have been otherwise, even had our Periods been measured by the Period of 129 years perpetually. There could not have been more than 26 Periods of 129 years complete between A.M. 1 B.C. 4004 and A.M. 3333 B.C. 672.

It follows however on this principle, and it is on every account deserving of remark, that in this case too the Feria of ingress of the xxviith Type (=xxviiith) in its proper style, according to the rule and analogy of every thing of the same kind before, must have been April 25 the *feria tertia* at midnight; and the corresponding Feria of ingress of the Natural time of that Type, agreeably to the same analogy, must have been March 30 the *feria quinta* at midnight, instead of March 30 the *feria quarta* at midnight. And from these distinctions we may draw the inference that the virtual effect of the two miracles, when complete, was to depress the absolute epoch of Julian time from April 25 the *feria tertia* at midnight to April 24 the *feria prima* at midnight; *two* terms, in the order of *feriæ*, though *one* only in that of the Julian notation: and the corresponding epoch of Natural from March 30 the *feria quinta* at midnight to March 30 the *feria quarta* at midnight; one term in the order of *feriæ*, but none in the order of the Julian notation. And this is a very observable distinction; and very competent to satisfy us that even the Natural time of the present system of things sympathised with the Julian in its proper proportion under such an anomaly as that of the miracles; by falling back *one* term in the order of *feriæ*, as that fell back *two* terms. It is not easy to see, if neither of these miracles had ever happened, how the Hebdomadal dates of the mean vernal equinoxes, in the Natural year, could have been what they are at present; and not one term in the order of *feriæ* later than at present.

such as we have supposed, which could not fail to depress the Julian time of all the succeeding Types one period of 24 hours of mean solar time, one mean cycle of day and night, one mean Hebdomadal *feria*, one term in the regular Julian style of such things, in comparison of that of all the preceding, must actually have raised the Natural or equinoctial from this time forward exactly to the same extent.

It has been explained that the proportion of the Natural time of our Tables to the Julian is such, that the former must recede on the latter at the rate of 24 hours in the course of one of our Julian Types or Julian Periods; and that this rate of recession is invariable, and can never be either greater or less than 24 hours in every Type. But in order to the production of this effect (as the reader scarcely requires to be reminded), Natural annual time must go on in conjunction with Julian, and with the *same* form of Julian, from the beginning to the end of one of these Periods; i. e. for 112 or 140 years at a time. If then such an anomaly could be conceived to happen as that of a given Julian Period's coming to an end in half this time, and consequently when the recession of the Natural time of the Period on the Julian was only half complete; what must the effect of such an anomaly on the relation of the Natural time of the Tables in general to the Julian in general be, except that of advancing the epoch of the former in the next Type *twelve* hours in comparison of that of the latter? or *vice versa*, that of depressing the epoch of the latter in the next Type *twelve* hours in comparison of that of the former?

And if this anomaly should be repeated in the middle of another Type; if another Type too should come to an end when its proper number of years was only half over; and if the recession of Natural time in that particular form of Julian should be arrested and stopt prematurely, when it was only half completed; what must the effect of two such anomalies as these conjointly on the relation of Natural time to Julian of the next Type be, except that of advancing the epoch of the former an entire period of 24 hours of mean solar time, an entire *feria* of the Hebdomadal cycle, in comparison of that of the latter? It should never be forgotten that Natural time through all these Types continues one and the same in itself, whatsoever Julian may do; and that Natural time in them all is a reality of its kind, Julian for a time is so only as constantly equated and assimilated to Natural. So that from this time forward while Julian time in successive Types would enter the Tables on a certain *feria* at midnight, Natural or equinoctial must enter them along with Julian, according to the positive rule of the Tables, at midnight on the *feria* next in order to it.

Now it was actually the case that each of the miracles in its proper order of time happened as nearly as possible at the middle of the current Julian Period; the miracle of Joshua about the middle of Period xx, that of Hezekiah not long before the middle of Period xxvii. The proper length of each of these Periods according to the regular cycle of the Tables would have been 112 years. Its actual length was 56. And yet it is easy to see that under the circumstances of the case it could not have been more. The relation of one of our Julian Types to another, under the special circumstances of the case in each of these instances, required to be restored to its first principles at the end of these 56 years, as much as it would otherwise have done at the end of 112. The preceding Type in each of these instances was already as excessive, and as much out of proportion to the next in order to itself, and to the abstract idea of all such Types alike, at the end of 56 years, as it would have been at the end of 112. And though this disproportion was the effect of *two* causes, one the natural course of things for a certain time, the other the preternatural event of the miracle in the course of the same time, the effect was just the same. Both causes conspired to one result; that of disqualifying the Type for its proper use and purpose in half the usual time: and therefore of requiring it to be superseded by another in half the usual time also.

It follows that albeit the relation of our Julian Types one to another would be restored by this abridgment of the duration of these two in particular, and they would thereby be rendered competent to go on one in comparison of another just in the same way as before; the relation of the one Natural Antitype to all these variable Julian Types of itself in common from this time forward would be disturbed, in comparison of what it had always been until then: and both could not go on in conjunction in the same state of relation to each other as before. After the first miracle, there would be *twelve* hours' difference in excess and in defect between the epoch of each respectively; and after the second, there would be *twenty-four*. And this latter effect having been once produced, and never having been undone by any contrary anomaly of later date; it must be perpetual. It would not begin to be complete to its utmost extent before the ingress of Type xxviii: but it would hold good ever after that.

It follows that, if the proper Julian and Hebdomadal style of the Julian time of the Tables at the ingress of the xxviiith Type, A. M. 3333 B. C. 672, for the reasons which have thus been assigned, set back to the beginning became April 24 the *feria prima* at midnight; the proper Hebdomadal style of the Natural or equinoctial, for the same reasons, set back to the beginning also must have become the *feria secunda* at midnight, and its proper Julian style, in strict proportion to that of the Julian, must have become April 25 the *feria secunda* at midnight. Consequently at the actual ingress of Type xxviii (=xxvii), A. M. 3333 B. C. 672, it would be 26 terms in the order of *feriæ* behind the *feria secunda* at midnight; and 26 terms in the order of the Julian notation behind April 25 at midnight: i. e. it would be March 30 the *feria quarta* at midnight. And this would be the true date of the mean vernal equinox at the ingress of Period xxviii, A. M. 3333 B. C. 672; exactly as it is represented in our Tables: corrected at least as they require to be in the manner explained in the Appendix to the Fasti Catholici[b].

It follows that just at this point of time (the ingress of the xxviiith Type) a great change took place in the style of the Julian time of the system from the first until then, and in the relation of the Julian to the Natural or equinoctial time of the system; yet not greater or more important than real and permanent: and it serves to explain some remarkable statements which we had frequent occasion to make in the former part of this Work, and have had frequent occasion to repeat in this second part. For first, the Julian time of the system at the ingress of this Type being carried back to the beginning; if the first Julian term, the radix or epoch of the entire succession of the Noctidiurnal the Hebdomadal the Annual cycles of the system, in terms of the Julian notation of each respectively, drops at this moment from April 25 at midnight to April 24 at midnight, every other, dependent on it and deducible from it, in the same notation and in the same relation to each of those cycles, must drop in the same proportion. And *this* is the true explanation of what we have often asserted; viz. that, after the ingress of Type xxviii B. C. 672, a given Julian term, reduced to its place in the succession of such terms from the first, and in its proper relation to one and the same cycle of Noctidiurnal, Hebdomadal, and Annual time respectively, must drop to the next beneath it: March 24 for instance, the epoch of the calendar of Mazzaroth before B. C. 672, must become equivalent to March 23 after it. It could not be otherwise; if April 25, the head of the entire succession of such terms from B. C. 4004 to B. C. 672, just at the same point of time became equivalent to April 24*.

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[b] Vol. iv. 537.

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* It will be observed however that though the style of the epoch or radix of the entire succession of the Julian time of the Tables was now changed from April 25 to April 24; and therefore according to the positive law of the succession was to be treated from this time forward as if it had been April 24 from the first; no change was made in the *feria* of origination. April 25 was the *feria prima* B. C. 4004, and April 24 was the *feria prima* B. C. 672; and in that respect it made no difference whether the entire succession of Julian time before the ingress of Type xxviii was reckoned from April 25, or after it from April 24. And yet it may justly be regarded as a remarkable coincidence that a change in the style of the epoch of origination, which the course of circumstances rendered inevitable, should have made no difference to the *feria;* especially, when we consider further that, if the course of circumstances itself had not been so controlled that the joint effect of both miracles should be realized neither a moment earlier nor a moment later than the ingress of Type xxviii, even that could not have been the case.

It adds not a little to the extraordinary character of the whole of this œconomy of things, that at the ingress of Type xxi also, the next in order to that in which the first miracle happened, April 24 was the *feria prima*. For, though the effect of the anomaly in question was not complete at that time, it was *half* complete even then; and it is manifest that, just on the same principle on which after the repetition of the miracle in Type xxvii we were bound at the ingress of Type xxviii to assume the radix or epoch

Secondly, the Nabonassarian equable time of the system also at the ingress of this Type being carried back to the beginning along with the Julian; if the epoch of the former in its proper relation to the latter before this point of time was Mesore 10 = April 25, it must now become Mesore 9 = April 24. It follows that, when the Julian epoch of the system descended from April 25 to April 24, and every other Julian term dependent upon it descended in the same proportion; the Nabonassarian epoch descended from Mesore 10 to Mesore 9, and every Nabonassarian term of the system, dependent on that and regularly derivable from it, descended in the same proportion. And *this* is the true explanation of what we have often had occasion to assert; viz. that, after the ingress of the xxviiith Nabonassarian Type as much as the xxviiith Julian one, B. C. 672, Æra Cyc. 3335 Æra Nab.

of the entire succession of Julian time from the first until then April 24 the *feria prima* at midnight, and that of Natural or equinoctial April 25 the *feria secunda* at midnight; we were bound at the ingress of Type xxi to assume the former April 24 the *feria prima* at 12 hours, and the latter April 25 the *feria secunda* at 12 hours.

It is not less remarkable that just at the ingress of Type xxxv also, when the entire succession of the Julian time of the Tables became fixed for ever in one and the same Type or form, (regularly derived notwithstanding from this which first came into existence A. M. 3333 B. C. 672,) April 24 was again the *feria prima;* and the entire succession of Julian time in the form of that Type (*virtually* even before A. D. 225, *actually* ever after it) could not possibly bear date from any *feria* as that of origination but the *feria prima*. We cannot help inferring from these coincidences, (though with all humility, and all distrust of our own judgment, in a matter which directly concerns the Divine apprehension of fitness and propriety, not our own,) that in the estimation of the Author and Disposer of this whole order of things from first to last it was indifferent what the proper civil (i. e. merely *conventional* and *positive*) *style* of the epoch of origination might be, whether April 25 or April 24; but not indifferent what the *feria* of the epoch should be. For reasons best known to the Divine Wisdom itself (and reasons which might possibly pass immeasurably beyond the beginning of our own system of things) it might be absolutely necessary that the *feria* of origination even of our own system should be the *feria prima*. And we may draw from this distinction *one* conclusion of great importance to the question of the Natale Mundi; viz. That no day in any year, or at any season of that year, could possibly be the true day of that denomination which was not also the *feria prima* of the Hebdomadal cycle.

76, a given Nabonassarian term in its proper place in the general succession of such terms from the first, and in its proper relation to the corresponding term in the Julian succession of similar terms, which it accompanies perpetually, and to any thing else, measured or measurable by both alike, must become equivalent to the one before it*.

Thirdly, if there was from the first such a thing as the proper astronomical character of the present system of things which came into existence at the epoch of the Mosaic Creation, (the mean solar or lunar longitude, the mean sidereal time, of the *first day* of the system itself, at mean midnight, or mean noon, in the *first* mean Julian *year* of the system, and that *first day* of the *first* mean Julian *year* of the system was April 25,) then this proper astronomical character of the system, as that of the first day of its first mean Julian year, before the ingress of Type xxviii B. C. 672 must have been that of April 25 at mean midnight or mean noon at the beginning of every mean Julian year of the system later than the first perpetually; and after that ingress, B.C. 672, it must have become that of April 24 perpetually[c]. And yet the mean Julian time of the system and the mean equinoctial time of the system just at this moment being both set back to the beginning, and the epoch of the former being assumed April 24 the *feria prima* at midnight, and that of the latter April 25 the *feria secunda* at midnight; it follows that the mean Julian time of the system, and the mean equinoctial, each reckoned from its proper epoch, at this moment must have begun to differ by 24 hours in excess and defect respectively. If so, the proper astronomical characters of the system too, (its mean solar or lunar longitude, its mean sidereal time, at mean midnight or mean noon of the proper first day of the proper mean Julian annual time of the system perpetually) before and after this point of time, the ingress of Type xxviii, B. C. 672, must have differed by 24 hours in excess and in defect respectively. If the system had always such a day before this ingress, and continued to have such a day after it, but its proper Julian style before was April 25, and after was April 24; the proper astronomical character of the system, in terms of the mean solar or lunar longitude or of the mean sidereal time of the system, as that of this day perpetually, before and after this point of time must have differed by 24 hours in excess and defect respectively; 24 hours' mean solar or lunar motion in longitude, 24 hours' mean sidereal time: 24 hours of either, reckoned from 0° 0′ 0″, the zero or epoch of mean motion in longitude or mean sidereal time, down to the ingress of Type xxviii, B. C. 672, and 24 hours of the same, reckoned from a zero or epoch 24 hours' mean motion, or 24 hours' mean sidereal time, below it or in anticipation of it, after this ingress. And yet the proper astronomical character of the system in this sense will truly be that of April 25 at mean midnight or mean noon, down to the ingress of this Type; and as truly that of April 24 at mean midnight or mean noon after it: and, what is more, there cannot be any real difference in the astronomical character of the system, as referrible to this test or criterion perpetually, before and after this point of time respectively. The absolute mean solar or lunar longitude, the absolute mean sidereal time of the system, must be the same *per se*, whether that of April 25 at mean midnight or mean noon, before the ingress of Type xxviii, or that of April 24 at mean midnight or mean noon, after it; though reckoned respectively from an epoch 24 hours in mean motion, or 24 hours in mean sidereal time, one in excess or one in defect of the other respectively.

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* And as the Nabonassarian equable time of the system, thus set back along with the Julian at the ingress of Type xxviii of each, is found to drop from Mesore 10 to Mesore 9; so the Cyclical equable too, it might be supposed, set back to the beginning along with both at this point of time likewise, would drop from Thoth 1 to Epagomenè 5; from Thoth 1 as the same with April 25 to Epagomenè 5 as the same with April 24. And hypothetically it might be assumed to do so: but even in that case only from Thoth 1 to Epagomenè 5 as virtually the same with each other; each being the same with the *feria prima*. But the truth is that, with respect to the Cyclical equable date of origination and its proper style, even such an hypothesis is excluded by the nature of the case. In every instance of the *reditus retro* of this kind, as we carry back one and the same Type of Julian time so do we one and the same of Equable; viz. that which in its own nature is adapted to accompany the Julian perpetually, and *mutatis mutandis* is capable of preserving the same relation to it perpetually. And this is of course the Nabonassarian not the Cyclical.

[c] Fasti Catholici, iv. 523 sqq. Introduction to the Tables of the Fasti Catholici, p. 212 sqq.: 209. 217. 247 sqq.: 262, 263.

And these are very important distinctions; the truth of which as simply matters of fact was fully illustrated in our former Work: and the rationale or principle is here pointed out. It can scarcely be necessary to draw the attention of astronomers and men of science to them. The mere statement of such things, it may be supposed, must be sufficient to excite their curiosity to know more concerning them. For that the fact itself will be found on inquiry into it to be different from what it is here represented to be, we have no reason to fear; and if it is as we have stated it, it supplies a particular proof both of the absolute duration of the present system of things and also of the anomaly which once, and only once, has been permitted to step in and modify those proper astronomical characters of the system, which astronomers and men of science ought to be most competent to understand and to appreciate rightly. That is, it serves as a decisive argument of the truth both of the Scriptural account of the Mosaic creation, and of the Scriptural account of each of the great miracles, the solstice of Joshua, and the retrogradation of the sun in the time of Hezekiah. We may venture to say that, if the present system of things was either a year older or a year younger than it actually must be, if dated from the mean vernal equinox B. C. 4004; and if the proper Julian epoch of the entire Julian time of the system (Noctidiurnal and Annual) had been any other Julian term than April 25; or if April 25, in its proper relation to the Natural and Julian time of the system, had been any thing but the proper Julian style of the first mean vernal equinox; and if this proper Julian epoch of the entire system, April 25, some time in the course of its decursus had not by some means or other come to be depressed to April 24; and if the system itself had only a proper mean motion, and a proper meridian, from the first: none of those characters which actually discriminated April 25 at first, and actually discriminate April 24 at present, from any other Julian term before or after them, would actually be the case. It is therefore true to affirm, (as we have repeatedly affirmed,) that the reality of the two miracles is attested by sensible proofs even at present; and that none of those phenomena even in the heavens, which have supplied the true astronomical tests and criteria of the duration of our proper system of things perpetually, would be what it is *de facto* at present, if neither of these miracles had happened.

We believe that we have now noticed and explained every thing, whether in the Theory or in the Administration of the system of time represented in the Fasti Catholici, which required to be noticed and explained, in order to make it intelligible; and we might now take our leave of this subject, did there not still remain a question which is very likely to have been suggested to the minds of our readers by the tenor of these explanations themselves: viz. By what right do we assume (as we have certainly in the course of the preceding explanations assumed) that this one Julian term April 25, down to a certain time, and this other, April 24, after that time, was the true epochal or initial term of the entire succession of the proper Julian time and of the proper Natural time of the present system of things? It would manifestly be improper to leave ourselves open to the charge of having taken such a fact as that for granted, without some proof of its truth. We think it incumbent upon us therefore to answer this question. We shall suppose only that the question itself is virtually *this*; By what right is it to be assumed that the present system of things came into being on this particular Julian day, April 25, and yet at the mean vernal equinox also? or, *vice versa*, at the mean vernal equinox, and yet on this particular Julian day? And in endeavouring to answer it to the best of our ability we propose to treat it as one of *fact*; which must consequently be decided by *testimony*, and nothing but testimony. And though testimony to such a matter of fact as this must include that of Scripture, and no testimony on such a question could possibly compete with that of Scripture; we trust it will not be considered to derogate from the dignity and authority of Scripture, if we reserve its testimony for the present, and endeavour to answer the question first of all, if possible, by means of data not obtained from Scripture. We shall beg leave only, for the particulars of those data, and for the proofs which even they may be considered to require, to refer to the former part of our Work, or to the ensuing one; in one or other of which those data and those proofs will be found.

Assuming then that the state of the question proposed for discussion is *this*, By what right have we taken it for granted that the epochal or initial date of the true Natural annual time of the present system of things was the first mean vernal equinox; and that the epochal or initial date of the true Julian annual time of the present system of things was April 25; and consequently that April 25 was the date of the Natale Mundi in the sense of the first mean vernal equinox? we answer,

i. It has been shewn in the former part of this Work that the tradition of all mankind, the conviction, belief, and testimony of every nation under the sun, was unanimous to *this* effect; viz. That their proper system of things, the system with which each was connected in its proper order of time, came into being at one season of the natural year in particular, the season of spring[d].

ii. The zero or epoch of the Sphere having been every where assumed as the first point of Aries; this too is a demonstrative proof that the *primum mobile*, the κέντρον κινήσεως, of the heavenly motions, was supposed every where to be the first point of Aries, and no other point on the Sphere[e]: and therefore that the measures of time, and in particular the Noctidiurnal and the Annual, traced up to their origin or epoch, were believed every where to have begun at the mean vernal equinox.

iii. The combination of the Sphere of Mazzaroth with the Natural or tropical Sphere, first made in Egypt, and in the course of time received and adopted in all parts of the ancient world, is decisive of *this* fact; viz. that within 500 years of the Deluge and of the descent from the ark it was still remembered and known in Egypt, that the true Natalitial season of Mundane time was the season of spring: and not only so, but that the *first* sign in the Sphere of Mazzaroth was the *last* sign in the Primitive Sphere; that the Krion of

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[d] Vol. ii. 67 sqq.

[e] Fasti Catholici, ii. 70. 80 and note: iii. 280 sqq.

Mazzaroth was the Ichthyon of the beginning, and the Tauron of Mazzaroth was the Krion of the beginning[f]. And it is further confirmed by the fact that, in the representation of the signs of the Sphere by animal figures, (first made by the Egyptians also, but not before the deification among them of the Bull as the type of the Sun,) the figure and name of the Bull were given to the *second* sign of the Sphere of Mazzaroth, not to the *first*[g]; and that, in the adaptation of the asterism or constellation of the Bull to the zodion of the same name, the two stars, Beta and Zeta Tauri, which at the beginning of things actually stood on the vernal colure, were placed on the tip of the horns of the Bull[h]. It is further confirmed by the fact that among the Hindus the Bull not the Ram was the type of time[i]; and in the Sphere of the Hindus the Bull was recognized as an earlier Ram by its name itself: and that in the Sphere of the Persians, though the Ram was actually the first sign, the Bull was virtually so; the first of the characters which denoted the order of the signs was awarded to the Bull: and in the cosmogony of the Persians the Bull, not the Ram, was the Primordial sign[k]. The origin of things was placed in the Bull; the seminal principles of all being were summed up, deposited, and comprehended in the Bull[k].

iv. The limits of the Krion of Mazzaroth (the first month of the Calendar of Mazzaroth) according to the Phœnix rule, which reckoned the Noctidiurnal cycle from noon to noon, were March 24 at noon and April 24 at noon[l]; according to the Primitive rule, which reckoned it from sunset to sunset, were March 24 at 18 hours and April 24 at 18 hours: according to the Julian rule, which reckons it from midnight to midnight, were March 25 at midnight and April 25 at midnight. It follows that these were also the limits of the Ichthyon of the Primitive Sphere, according to the Julian rule; March 25 at midnight and April 25 at midnight. Consequently that the limits of the Primitive Krion, according to the same rule, were April 25 at midnight and May 25 at midnight; and therefore that, when this delineation of the

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[f] Fasti Catholici, iii. 250 sqq. 305.

[g] Ibid. iii. 368.

[h] Ibid. 370. 258.

[i] Ibid. 256. iv. 66.

[k] Ibid. iii. 255. ii. 83 note.

[l] Ibid. iii. 305. 241 note. 291.

Sphere of Mazzaroth was first made, and these limits were first laid down in it, and wheresoever it was afterwards received and recognized in like manner, the first mean vernal equinox and the Natale Mundi, in this sense of the first of Krion of the Primitive Sphere, must have been supposed to be April 25 itself.

v. The doctrine of the opposition and conflict of principles, the principle of good and that of evil, (the former personated by Oromazes or Ormuz, the latter by Arimanius or Ahriman,) this doctrine we say, (the doctrine of Dualism,) is to be traced up for its origin to Bactria, and to the system of the elder Zoroaster; but the first conception or idea of the doctrine, even in this system, is derivable from the Sphere of Mazzaroth in combination with the Natural or tropical. It is resolvable into that of two contrary motions, confined to the limits of the Krion of Mazzaroth; and those limits these two Julian terms, March 26 and April 25, respectively, according to the assumptions of the Bactrian reformer[m]: one of them *in consequentia*, from the epoch of March 26, in the natural order of the Sphere of Mazzaroth, the other *in antecedentia*, from the epoch of April 25, in the contrary order of the Sphere of Mazzaroth, but in the natural order of the recession in the Sphere of nature; each of which having gone on in its proper direction, and at the same rate, for 3000 years, both at last came into collision in the middle point of the limits prescribed to each, April 10, the middle day between March 26 on the one hand and April 25 on the other: the epoch of which encounter, according to this system, was the origin of dualism; and the origin of the present mixed and complicated system of things, in which good and evil appear to be equally divided and equally dominant.

vi. We meet with a tradition among the Chinese that the beginning of the motion of the earth confined on the limits of their two lunar mansions, Mao and Pi[n]. The Julian date of the last day of Mao and of the first of Pi was April 20 and April 21 respectively[o]. Now of what could the beginning of the motion of the earth be intended but the beginning of Noctidiurnal or of Annual time? each of them the effect of the motion of the earth; the former that of the motion of the earth round its own axis, the latter that of the motion of the earth round the sun. If so, this Chinese tradition recognized one of these Julian terms, April 20 or 21, or some other nearly akin to them, as the true date of Noctidiurnal and Annual time; that is, of the Natale Mundi itself.

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[m] Fasti Catholici, ii. 83 note.

[n] Ibid. ii. 94 note.

[o] Ibid. iii. 552.

vii. The first Etruscan Type of the Nundinal Correction was attached to the epoch of April 23 B. C. 980; the second to that of March 25 B. C. 860: the former to the nearest Julian term to the Julian date of the Natale Mundi, April 25, which could have been fixed on as the date of such a Correction at that time; the latter to the nearest to the epoch of the Sphere or Calendar of Mazzaroth, March 24, which could have been assumed at that time. The rise of the older of these Types in Italy appears to have been simultaneous also with the origin of a ceremony, peculiar to ancient Italy; that of driving a nail at stated times into the walls of some sacred building, as a *note* of *time*, as one among other modes of *fixing* and *marking* the succession of time. And the most probable explanation of the rise of this ceremony, along with that of *this* Type of the Nundinal Correction in particular, is the return of the Primitive Calendar itself just at the epoch of that Correction to the Natale Mundi; a coincidence which it was proposed to fix and perpetuate by this ceremony ever after.

viii. Among the ancient Italians too the impersonation of nature (especially of animal nature) was called Pales; and the feast day of Pales was attached to the spring, and to this particular day in the spring, the Julian April 24 or 25: and what could be so proper for the feast day of universal nature, under this person and name of Pales, as the Natale Mundi? The Calendar of Romulus and the city of Rome both came into existence in the same year; but the Calendar bore date on Feb. 4, the city was founded on April 24: and what day was more likely to be chosen for the foundation of Rome than the Natale Mundi?

Now these facts, exactly as we have stated them, are all brought to light, confirmed by their proper proofs, in the first or in the second part of our Work. They are all discovered, independently of the testimony of Scripture; and they constitute a body of evidence, (especially such of them as come to our knowledge through the history of the Sphere of Mazzaroth,) on the strength of which we appear to be authorized to infer that it must long have been known and long believed among mankind that their proper system of things came into being on *one* day: and that *one* day the first mean vernal equinox of the system itself: the Julian date of which must have been this Julian term of April 25. In reply therefore to the question which we began with proposing, By what right have we taken it for granted that the proper Natural annual time and the proper Julian annual time of the present system of things both came into existence at the point of the mean vernal equinox and on the Julian April 25? to this question we say we might reply, On the faith of an universal tradition, handed down from the beginning of the system itself; attested and sealed too by some of the most remarkable yet most unquestionable and most lasting and permanent of the doctrines, the institutions, the conceptions and ideas, of men themselves: founded on this tradition, and ultimately resolvable into the belief of it.

But this is not all that we have to say in answer to this question. The Propositions maintained in these Origines, and summarily stated *supra*[p], are of the first importance on this question of the Natale Mundi and of its proper date. For if it can only be established on the basis of a general induction, (as broad and indiscriminate as the assertion which has to be made good,) that the Civil Calendar was every where originally the same, and every where the Cyclical equable year; and that this Cyclical equable year every where and at all times was still the same with the Cyclical equable year of our Fasti; and that the Civil Calendar any where in existence at present, *mutatis mutandis*, is still the same with this Primitive one, or still capable, mediately or immediately, of being identified with it: it follows that, take any of these calendars you please, and at any point of its decursus you please, yet trace it perpetually upwards from that point to its own origin in the Primitive Calendar, and then in that according to the proper law of the Cyclical equable year; it must bring you at last to the fountain head and source of all these derivative streams of civil time: the origin of the Primitive Calendar itself, the first day of civil time, in this form of equable, among mankind themselves. And the first day of civil time among mankind, in its proper Calendar and in its proper style, it may well be supposed *a priori*, if it cannot be absolutely taken for granted, must have been the Natale Mundi also.

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[p] Page iv.

Now it has been demonstrated, in the former part of these Origines, that the ancient Egyptian Calendar, the ancient Hindu Calendar, the ancient Chinese Calendar, was this Primitive Calendar, altogether the same with that of our Fasti; and it is demonstrated in this second part that the Calendar of ancient Italy, from which every Type of the Nundinal Correction, peculiar to that country, was derived in its turn, was this Primitive Calendar too, altogether the same with that of our Fasti. It follows that did we trace back any of these calendars, and from any point of its decursus, until we connected it with the Primitive Calendar again; yet beyond that point we should still be tracing back in any of them only the Equable Calendar of our Fasti: and that in fact, if we trace back the Equable Calendar of our Fasti from any point of time later than the latest of these corrections, we trace back the Primitive Type of *all* these corrections, and *all* these secondary Types of the Primitive along with it, to their common source and origin, at once.

If then the proper annual time of the present system of things, both Natural and Julian, came into being simultaneously at the mean vernal equinox and on the Julian April 25; and Primitive civil time came into being along with both: it follows that the Cyclical equable calendar, traced back in our Tables from any point of time in its own decursus later than the beginning of things, if it is to bring us to the true Natale Mundi, must bring us to each of these things *at once*; both to the mean vernal equinox in the Natural year, and to the 25th of April in the Julian. Now that is a distinction of very great importance. The first day in the Cyclical equable year, traced back in the Julian according to its proper law perpetually, will bring you to a *different* Julian term every four years; but to the *same* Julian term only once in not less than 1504 years[q]: and traced back in the Natural year it will bring you to one Natural term after another every four years; but to the *same* Natural term (like that of the mean vernal equinox) only once in 1507 or 1508 years[r]. The first of Thoth, for example, (the first day of the Primitive year represented by that of our Fasti,) traced back in our Tables perpetually from the present day, will come to April 25, as a given Julian term, and to the mean vernal equinox, as a given natural term, respectively, and one independent of the other, *four* times in the course of the interval comprehended between the end of our Tables and the beginning; but it will come to April 25, as a given Julian term, and to the mean vernal equinox, as a given natural one, simultaneously, (i. e. to the Julian April 25 as the proper Julian date of the mean vernal equinox for the time being,) only *once*: and *that* in the very first year of the Tables themselves, A. M. 1, B. C. 4004, Æra Cyc. 1. And having come to *that* day, and in *this* special relation to the mean natural year, on that *one* occasion in the course of its revolution backwards from the present day; follow it still in the same kind of revolution as far back beyond the date of the first coincidence of this kind as you may, it will not come again to this same Julian term in this same relation to the mean natural year for an indefinite length of time.

Thus far then, in returning an answer to this question of the Natale Mundi, we might proceed even without the help of Scripture. The true Natale Mundi must combine three characters, each of them discoverable independently of the assistance of Scripture; That of the first day of the Primitive Equable Calendar; That of the first mean vernal equinox in the Natural year; and That of the Julian April 25: the first of Thoth in the Civil Calendar of the time being, the first of Krion in the Celestial Calendar, and the 25th of April in the Julian. These characters, on the strength of testimony or of an incontrovertible matter of fact, we say it must combine; the second and the third, on the strength of testimony, and because the Natale Mundi has been handed down from the earliest times so characterised: the first, on that of an indisputable matter of fact; viz. that Primitive Civil time, traced back, according to its proper law, from any point of its decursus, must return at last to its own origin and fountain head. And each of these characters being known beforehand; they would be competent, taken in conjunction, to designate and identify the true Natale Mundi itself in its proper place and order of time. One day only could unite all these characters within any conceivable limits which could be assigned to the duration of the present system of things; and that one day would be April 25 B.C. 4004.

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[q] Fasti Catholici, iii. 48 note.

[r] Ib. 45 note.

Further than this however in the solution of such a Problem, independently of Scripture, it is probable we could not proceed; and that we should be required or expected to solve such a Problem altogether without the assistance of Scripture would be unreasonable in the extreme, and not more unreasonable in itself than disparaging to Scripture: as if its proper testimony on this point could ever be dispensed with as superfluous; could ever be superseded by any distinct from, yet superior to, and more authoritative than, its own: could ever be compensated for and supplied if wanting by any more authentic and more credible than its own.

Now besides those characters of the true Natale Mundi, discoverable without the express testimony of Scripture, which have just been pointed out; others there are, which must have distinguished it also, and yet never could have been certainly known of except from the intimations of Holy Scripture. For example, if every numerical term which ever made part, or still makes part, of the Noctidiurnal succession of the present system of things, always has had and still has a character of its own, derived from the proper relation of every term in the Noctidiurnal to the Hebdomadal which has accompanied the Noctidiurnal perpetually; the Natale Mundi itself, as one such numerical term in the former, must have had a character of its own, derived from its place and order in the latter. And though we might have considered it probable *a priori* (so probable, as to be morally certain) that the true Natale Mundi, as the very first numerical term in the Noctidiurnal succession, must have been the very first *feria* in the Hebdomadal also; we could not have known that of it for certain, except from the testimony of Scripture: for *this* additional character of the Natale Mundi, viz. that besides being the first vernal equinox, and the first numerical term in the proper Noctidiurnal succession of the present system of things, it was also the *feria prima* of the first Hebdomadal cycle which has measured that succession perpetually, has not been handed down; nor, so far as we know, any thing which would imply it, except in the shape of an enigmatical tradition of the Egyptians, to which we had occasion to allude in our former Work[s]. But from the testimony of Scripture we know this of it. No one requires to be reminded that the true Natale Mundi according to Scripture was the first day of the Hexaëmeron; and that the first day of the Hexaëmeron was the *feria prima* of the first Hebdomadal cycle.

To the three characters then of the true Natale Mundi, as ascertained *ab extra* to Scripture, the first of Krion in the Natural year, the 25th of April in the Julian, and the first of Thoth in the Primitive equable year; we must add a fourth, as real as any of them, and as important in its proportion as any of them: that of the *feria prima* of the Hebdomadal cycle. And if those three alone would be competent to designate and define this day, how much more those three along with this fourth! Let it then be observed that, by virtue of the constitution of the Primitive civil year itself, it was in fact the Noctidiurnal succession; and if the Noctidiurnal it was the Hebdomadal also: which is the Noctidiurnal merely in another form and under a different name. It was peculiar to this year to be a complex of 365 Noctidiurnal cycles; 365 actual cycles of day and night, perpetually: and in the scheme and decursus of that year, exhibited in our Fasti, there is not one which ever consisted of more or less than that number of such actual cycles, from the beginning to the end of the series.

It follows then that, when tracing back this particular form of the Annual cycle from any point in its decursus later than the beginning of things, you are tracing back the Noctidiurnal and the Hebdomadal also. Nothing is more easily, nothing is more certainly, to be done than, from the given

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[s] Vol. iv. 375.

Hebdomadal character of any one year of this kind, to get the corresponding character of any other before or after it. It is simply a process of *counting;* and with a succession of units the same in number perpetually. To save others the trouble of doing it for themselves, we have done it for them already in our Tables; by marking in them the *feria* of the first of Thoth at the beginning of every year of this kind from first to last: and these characters are so connected with and so dependent on one another throughout, that if there is no error at the end of the process there can have been none at the beginning; and *vice versa* if there was none at the beginning there can be none at the end. The reader has only to bear in mind that, between any two consecutive characters of this kind, there must be 52 complete cycles of seven *feriæ* and one *feria* more of a 53d; consequently that, traced forwards, such characters must go on increasing by one *feria* every year in the natural order of the cycle, and traced backwards must go on decreasing by one *feria* in the retrograde order perpetually. If he finds this distinction holding good throughout, he may rest assured that this cycle of characters is going on correctly also. Let him then further remember only that, when tracing back the Cyclical equable year of the Fasti in connection with its Hebdomadal character perpetually, he is in reality tracing back the Primitive Civil year; which had an original character of that kind derived from its proper relation to the Natale Mundi: and then let him attend to *this* coincidence; viz. That, just at the moment when the Thoth of this Primitive year in the course of its revolution through the cycle of *feriæ*, and through every term of the mean Natural, and through every term of the mean or actual Julian, year of the system, comes to the mean vernal equinox in the Natural year and to the 25th of April in the Julian, both at once, it comes also to the *feria prima* of the Hebdomadal cycle: and that the year, which is characterized by this latter coincidence, is the same which is characterized by the other also, A. M. 1 B. C. 4004 Æra cyc. 1.

But again, as the present system of things had its true Annual time in the sense of Solar, from the first, so must it have had its true Menstrual time in the sense of Lunar, from the first; and if the Natale Mundi had a character of its own, derived from its relation to the Noctidiurnal and Hebdomadal time of the system in respect of the former, so must it have had one derived from the same relation in respect of the latter. And as to this further character of the true Natale Mundi, considered as the epochal term of the true lunar, as much as of the true solar, time of the present system; we should not have been altogether destitute of the means of judging of it even without the light of Scripture: because traditions are extant from which it must always have been a possible inference that the true lunar character of the Natale Mundi was known or believed to have been the Luna 28^{a} or 29^{a}[t]. But on a point which Scripture itself has decided so clearly, it would be absurd to think of appealing to any testimony, as plainer or more direct, than that of Scripture. Nothing can be more certain on the authority of Scripture than the fact of *this* distinction; viz. That, as the *first* of a certain series of Hebdomadal terms or *feriæ*, commonly called by divines the Hexaëmeron, was the true Natale Mundi in the sense of the first day of the proper Annual solar time of the present system of things; so the *fourth* of those terms (or the fifth according to the Julian rule) was the true Natale Mundi in the sense of the first day of the true Menstrual or lunar time of the system: and that, if the true Julian date of the former, reckoned by the Julian rule, was April 25 the *feria prima* at midnight; that of the latter, reckoned by the same rule, must have been April 29 the *feria quinta* at midnight.

Now this is a character of the Natale Mundi, the truth of which we can put to the test in more ways than one. First, assuming the standard of every mean natural lunation, which has made a part of the constant succession of the mean natural lunar time of the system, in exact conformity to the relation of mean lunar time to mean solar, in the sense of Julian, in the Hipparchean Period of 304 mean or actual Julian years[u], and attaching the first of the number according to a positive cyclical rule to April 29 at midnight B. C. 4004; we can delineate the entire succession of mean lunar time from that date to the present day, and as far beyond the present day as we may choose to continue it, in a series of lunar revolutions of the assumed standard, from conjunction to conjunction. And such a scheme is actually represented in our own Tables, from April 29 at midnight B. C. 4004 to April 9 at midnight A. D. 2077[x]. And in this scheme 75 200 lunations of the standard in question are necessarily comprehended; and among these 75 200 lunations of the Tables every actual lunar revolution from the beginning of things, (if the initial or epochal term of the entire succession was April 29 at midnight B. C. 4004,) must find its proper place in its proper order of time: and at that time and in that place it must coincide either wholly or in part with the corresponding lunation of the Tables. Nor is it possible that there could be any difference at a given time between the Tabular month and the true Lunar month of that time but what was accidental, and confined to very narrow limits at the utmost. They might differ in a particular instance by 24 hours, or even by 48; but in a majority of instances they would not differ at all: they would agree to a day with each other.

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[t] Fasti Catholici, iv. 369 sqq: 632.

[u] Introduction to the Tables of the Fasti, p. 88.

And this turns out to be the case. The Tabular or Cyclical date of any one of these 75 200 lunations in its proper order of time may be compared with the true in times past, as known from testimony or as determined by calculation; with the true at present, as known from our own observation and from the evidence of our own senses: with the true in times to come, as discoverable beforehand by calculation; and it will never be found to differ from it beyond the limits which have been specified. It must then have been absolutely certain, from the necessary connection, coherency, and dependency of a series of terms of this kind (dates of new moons as such), that, if any of the later was real of its kind, the first must have been so too; i. e. April 29 at midnight B. C. 4004, the epochal or initial term of the series, must have been the true *luna prima* at that time, as much as any similar term, consequentially deducible from it by the law of the succession, the true *luna prima* at any subsequent time.

Or secondly, we might adopt a shorter and much more expeditious course; and put this character of the Natale Mundi, in the sense of the first day of the true Menstrual or Lunar time of the present system of things, to the test at once by calculating the new moon of April B. C. 4004. And this too has been done in our former Work; and that problem also having been solved, and with all the precision of which even modern astronomy is capable, it is found that the *true* new moon of April B. C. 4004 took place for the proper meridian as nearly as possible at 8 hours 44 minutes before April 29 at midnight (i. e. April 28 at 15h. 16m. from midnight), and the *mean* new moon as nearly as possible April 29 at midnight[y].

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[x] Introduction to the Tables of the Fasti, p. xxxvi sqq.

It is therefore certain beyond the possibility of doubt that the true lunar character of this day, April 29 B. C. 4004, reckoned from midnight, was altogether the same as the lunar character of the fifth day of the Hexaëmeron, reckoned from midnight also, according to Scripture; and if you take into account the Hebdomadal character also of this day, April 29 B. C. 4004, reckoned from midnight, it will follow that both the true lunar and the true Hebdomadal character of this day were altogether the same with the true lunar and the true Hebdomadal character of the fifth day of the Hexaëmeron according to Scripture. And though these two characters only might not be competent to identify that day with the *feria quinta* of the Hexaëmeron of Scripture; yet in conjunction with those which have been already pointed out as holding good of April 25, (the *first* day of the self-same week of which April 29 was the *fifth* day,) and of their correspondence to those of the *first* day of the Hexaëmeron; no reasonable doubt can be entertained concerning it.

Yet this is not the whole of the proof which we have to adduce on this point. The Primitive solar year had its corresponding lunar year; and nature itself had adapted the one to the other so closely, and even so necessarily, that the knowledge and use of the former implied and involved the knowledge and use of the latter. It was impossible that they could ever have been separated from each other in theory; and it is inconceivable that they could ever have been separated in practice. If then the Antediluvian world had its Primitive civil and solar year; it is morally certain that it must also have had its Primitive civil and lunar year: and if the former was that form of the solar year which we have called the Equable; the latter must have been that form of the lunar which nature itself had preadjusted to the Equable solar year. Chronologers call this form of the lunar year the Apis cycle; and we also have uniformly called it the Apis cycle[z]. But it is very proper that the reader should know that the Apis cycle, in the ordinary sense of the name, was only a particular correction or modification of the natural lunar cycle of the Primitive solar year; first made in Egypt at the time of the rise of the Apis and of the foundation of Memphis in that country: the date of which, as we have demonstrated by a multitude of proofs in the former part of this Work, was comparatively late, B.C. 973[a].

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[y] Fasti Catholici, iv. 622: 674 and note.

It is very important therefore to this question of the true Natale Mundi, in the sense of the true first day of the true Menstrual or lunar time of the present system of things, to know that this Apis cycle of comparatively recent date was directly derived from an older and preexisting cycle of the same kind in general[b]: for this fact confirms the conclusion to which we have been led *a priori* from the nature of the case and the reason of things, that the natural lunar cycle of the Primitive solar year in use and observance among mankind must have been associated with it from the first; and that if there was a Primitive solar calendar, in the sense of civil, which went back to the beginning of things, there was a Primitive lunar calendar, in the same sense of civil also, just as ancient. The fact of this association from the first is the true explanation of the Period of 600 years, recognized by Josephus as peculiar to the Antediluvian world; for that was precisely the measure of this Primitive lunar in the Primitive solar year. It was the length of time for which the same Type of the former could go on in conjunction with the latter, without requiring the correction of a day[c]. It is sufficient to place it out of question however that among the

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[z] Fasti Catholici, i. 97: ii. 489. Dissertation xviii. ch. i. ii. iii. iv.

[a] See vol. ii. Dissertation xiii. and vol. iv.

[b] Fasti Catholici, iv. 384.

[c] Ibd. iv. 386.

Egyptians at least, if not every where else, this Primitive lunar cycle must have been transmitted, unchanged externally and in appearance, from the very beginning of things to the epoch of the Apis cycle of history.

Now the relation of the solar to the lunar element in every case of a combination of both (i. e. in every form of the lunæ solar year alike) being such that the former must be considered the primary, the latter the secondary, one of its kind; the style of the lunar element in every such combination is of course borrowed from that of the solar: and even when the reckoning is lunar the terms of the reckoning are still solar. The Apis cycle was no exception to this general rule; and from the comparison of the later one of that name with the similar cycle of primitive antiquity, just at the time of the transition of this latter into the former, we are enabled to discover that as the initial, epochal, or normal date of the later cycle in terms of the solar calendar was the 11th of Thoth, so that of the older in the style of the solar calendar also was the 8th of Thoth: but that the initial, epochal, and normal date of the lunar reckoning was the same in both; the *luna tertia* reckoned from the phasis, the *luna quarta* reckoned from the change. The meaning of this distinction is that the proper solar date of the later Apis cycle was the 11th of Thoth, and the proper solar date of the older was the 8th of Thoth; but that the 11th of Thoth and the 8th of Thoth denoted the same lunar date in each: the *luna quarta* reckoned from the change, the *luna tertia* reckoned from the phasis.

Let the reader then, who has been made aware of the fact of these distinctions, go back with us to the beginning of things, assuming that to have been in this year, B. C. 4004; and to the week of the Heptaëmeron in that year, assumed to be the week which extended from April 25 at midnight to May 2 at midnight: and let him attend to what was exactly the state of the case at that time; viz. first that April 25 was the 1st of Thoth, and May 2 was the 8th of Thoth: secondly that April 29 at midnight was the *luna prima* reckoned from the change, and April 30 at midnight was the *luna prima* reckoned from the phasis; May 2 at midnight was the *luna quarta* reckoned from the change, and the *luna tertia* reckoned from the phasis: and consequently that Thoth 8, reckoned from midnight, at that time was exactly the same.

Let him attend too to the distinction which he learns from Scripture; viz. That April 29 at midnight (the *luna prima* reckoned from the change) and April 30 at midnight (the *luna prima* reckoned from the phasis) were the fifth and the sixth days of the Hexaëmeron respectively, and each of them strictly anterior to the creation of Man: but that May 2 at midnight, or Thoth 8 at midnight, the *luna quarta* reckoned from the change, the *luna tertia* dated from the phasis, was not only posterior to the creation of Man, but the first day of the week next in order to that of the Creation; the *feria prima* of the *first* week which could properly be called and considered a part of the established course and succession of things. What then could be more natural in itself, and more consistent with that course and succession, than that the proper Menstrual time of the system should begin to be reckoned not from the change, nor yet from the phasis, (each of them prior to the existence of Man, and each of them part of a week *sui generis*, and unlike any other before or after it,) but from the *luna quarta* referred to the change, the *luna tertia* referred to the phasis, of the Moon of the epoch? the first lunar phenomenon strictly posterior to the creation of Man, and strictly coincident with the first day of the proper Hebdomadal time of the existing system of things. What then could the proper solar date of the Primitive Apis cycle under such circumstances be but the 8th of Thoth? and what could the proper lunar date be but the *luna tertia?*

Now this conclusion is greatly confirmed by the fact of the respect which (as we know from testimony *ab extra* to Scripture) was paid in Egypt from time immemorial to this Lunar term in particular, the *luna tertia;* as the epochal term of lunar time in general[d]: (a respect attested by the proper lunar epoch of the historical cycle of Apis itself, which was purposely attached to the *luna tertia* on that very account:) and yet by the recognition among the Egyptians also of two other lunar terms, second in dignity, and in the estimation in which they were held, only to this one of the *luna tertia;* the

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[d] Fasti Catholici, ii. 523. 568: iv. 371.

luna secunda and the *luna prima* [e], each reckoned from the phasis like the *luna tertia*. It must be evident that, if the *luna tertia* was the epochal term of this kind, the *luna prima* and the *luna secunda* must both have been ante-epochal terms of the same kind; and yet that the *luna prima* and the *luna secunda* in the nature of things must each have been nearer to the epoch and origin of a given succession of such terms than the *luna tertia*. But the truth is that this *luna prima* and *luna secunda* were the two lunar terms, set aside from the course of Menstrual time as making part in that of Human or Mundane from the first, because they were anterior to its proper commencement. They were the two lunar terms of the Hexaëmeron, April 30 and May 1, Thoth 6 and 7 in terms of the first Apis cycle; the 6th and 7th day of that week respectively. They must be sacred ideas of their kind; but not so sacred as the *Luna tertia*.

This conclusion is confirmed also by a very peculiar title, which appears to have been given among the Egyptians to that conception or person of theirs' whom they called Thoth, and the Greeks called Hermes; the title of the Lord of Eshmoun [f], or of the Octave. This title has occasioned much perplexity to the learned in the mysteries of the Egyptians; and they have endeavoured in vain to explain it on any consistent and rational principle. But its meaning becomes perceptible as soon as it is known that this Thoth of the Egyptians was the impersonation of time; the genius of time both solar and lunar, the patron and conservator of the calendar both solar and lunar: and that the proper date of the Apis cycle, which had combined both most regularly and for the longest time, was the *eighth* or *octave* of Thoth.

Lastly, it is confirmed by the name of the lunar month in Hebrew, in contradistinction to the solar; which is *iree:* for the proper meaning of that name is such as to imply that the proper epoch of menstrual time in the sense of lunar was some visible state of the moon—the phasis not the change [g]; such as the *luna tertia* reckoned from the phasis: and by the idiom of Scripture itself, in the reckoning of Menstrual in the sense of lunar time, in cases where more than usual exactness was necessary; which is critically in conformity to the same distinction[h]. We may add too, as another probable argument of the traditionary rule of Menstrual in the sense of lunar time, that among the Greeks also the oldest word for our's of the month (μεὶς) denoted the month, reckoned from the phasis not from the change[i]; i. e. what astronomers call the *Illuminative*, not the *Synodic*, month.

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[e] Fasti Catholici, iv. 372. iii. 354, note.

[f] Ibid. iv. 376

[g] Ibid. i. 259. ii. 213 and note.

Thus much might suffice in reply to the question which we began with proposing. We have endeavoured to answer it, as far as was possible, independently of Scripture; and we hope we have succeeded in doing so by means of data not supplied by Scripture, yet competent to decide such a question: The belief and the testimony of every nation on the face of the earth; especially of those among whom the greatest amount of information respecting the origin of the present system of things, not derived from inspiration, but handed down from the beginning by tradition, appears to have been earliest deposited and longest retained: The history of the Primitive Sphere, and in particular of the Sphere of Mazzaroth, and its cardinal dates: The Primitive solar and the Primitive lunar Calendar, each of which takes us directly back to the epoch of annual and to the epoch of menstrual time respectively. But, as we have already observed, though it may be allowable *ex abundanti* to answer this question independently of Scripture; yet to treat such a question seriously as if it were, or could be, independent of Scripture, would be an injury done to the truth itself.

It should therefore be distinctly impressed on the reader that the chronology of Scripture itself, (and by Scripture we mean the Hebrew verity,) traced perpetually downwards in its own Æra, the Æra Cyclica, from the date of the Creation to the date of the Fall, from the date of the Fall to the date of the Deluge, from the date of the Deluge to that of the call of Abraham, of the 430 years, and of the birth of Isaac respectively, and from the date of the birth of Isaac to that of the descent into Egypt, and from thence to the date of the Exodus, (when the proper Æra of Scripture itself underwent a change,) attests and substantiates one primary and absolute epoch of the existing system of things in terms of this Æra; and only one: the same precisely to which we have been already led by every argument and every consideration, available for that purpose, yet produced. And though, from the nature of the case, as traced downwards through integral periods of its proper Æra perpetually Scripture confirms in the first place only the annual succession of that Æra in general; in some instances it does more: it fixes also the *style* of the Æra from the first. For example, if it determines the Deluge to Æra Cyclica 1658, it must presuppose the Creation Æra Cyclica 1: and if the style of the cyclical date of the Deluge in the idiom of Scripture is Phaophi 17 Æra Cyc. 1658, that of the cyclical date of the Creation in the same idiom must be supposed to have been Thoth 1 Æra Cyc. 1. In like manner, if it dates the Exodus Æra Cyclica 2446, it must date the Creation Æra Cyc. 1; and, if the proper style of the Æra in its own idiom up to the very day of the Exodus (or at the utmost only 14 days before it) was still the proper Cyclical style, it must have been the proper Cyclical style from the first.

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[h] Fasti Catholici, ii. 213 note.

[i] Ibid. i. 60 note.

It is obvious too to remark that if Scripture supplies us with the true date of the Deluge in the true Cyclical or Equable style of the time being, and the true Cyclical or Equable style of the time being was nothing more or less than that of the Primitive Calendar for the time being; then, from the Scriptural date of the Deluge in its own Æra and its own style, we can discover at once, through the Primitive Calendar of our own Fasti, the true Julian date of that event: and this Scriptural date being Phaophi 17 Æra Cyclica 1658, the corresponding Julian date according to our Tables is May 5 A.M. 1657 B.C. 2348[k]. In like manner, if Scripture fixes the change of the style at the Exodus to the 19th of Phamenoth Æra Cyclica 2446, it enables us to assign the Julian date of the change, March 27 A.M. 2445 B.C. 1560; and if it fixes the change to the 14th day before the Exodus, it enables us to assign the Julian date of the Exodus April 9 B. C. 1560[l].

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[k] Fasti Catholici, ii. 166 sqq.

And on one of the dates thus obtained from Scripture, (as important and interesting *per se* almost as any contained in Scripture itself,) the date of the Deluge and of the second beginning of things, it is in our power to cast additional light by means of testimony, of the highest antiquity next to that of the Bible, and yet not derived from Scripture. This testimony is that of the Phœnix Period and the Phœnix Cycle among the ancient Egyptians. The story of the Phœnix, handed down by the Egyptians from the earliest to the latest times, is of course a fable; but even the fable is seen to have a meaning, and in some sense even a foundation in fact, as soon as it is known that the Phœnix of the fable was the World before and the World after the Flood: the World destroyed by the Deluge, and the World renewed and restored by the catastrophe of the Deluge itself. But the Phœnix Period and its proper Cycle is a matter of fact. Nothing is more certain than that such a Period came into being among the Egyptians; and that it had a proper Cycle, the measure of which was 500 years. Now we have shewn (and as we believe demonstratively) in the former part of this Work, that the *actual* epoch of this Period was B. C. 1847; and that the idea of such a Period, (destined to be measured by this particular Cycle of 500 years perpetually,) was first conceived and first realized among the Egyptians, at the time of the combination of the Sphere of Mazzaroth with the Natural or tropical, which they made in B. C. 1847[m].

Why then was the Cycle of this Period fixed to 500 mean natural or 500 mean Julian years perpetually? No doubt among other reasons, because of the assumptions involved in the Period itself; which would not have been compatible with any Cycle of the Period but that[n]. Must nothing however be allowed also for the circumstance or coincidence of the time itself, when the Period actually came into being, as likely *a priori* to conspire to the same effect? if that was just 500 years after the Deluge. It is difficult to answer this question in the negative, in the face of the fact that the cycle of the Period was actually the interval between the second beginning of things, dated from the year of the descent from the Ark, B. C. 2347, and the institution of the Phœnix Period, B.C. 1847; and in the face of the fable invented along with the institution, and so evidently adapted to the idea of the destruction of a former state of things, and of the rise of another, altogether the same with the former, out of its destruction itself: so evidently capable therefore of having been suggested by the historical fact of the Deluge itself. It is difficult we say, in the face of such grounds of presumption to the contrary, to believe that these things were not connected; that the Phœnix of the fable was not the World before and the World after the Flood: and that the cycle of the Period was not the first 500 years of the existence of this new World, from B. C. 2347 to B. C. 1847, as much as any thing else. And though chronologers, or men of science, of a sceptical turn of mind, philosophers, rationalists, critics of the *modern* school, see every thing, which is calculated to illustrate the truth of Scripture, through the jaundiced medium of their own prejudices; it is of very little consequence except to themselves what they may think of this coincidence. No candid and truth-loving mind will hesitate to draw the natural inference from it; viz. That B. C. 1847 the event of the Deluge was still well remembered in Egypt, and well known to have happened exactly 500 years before. The invention of the Fable of the Phœnix and the institution of the Phœnix Period just at this time are consequently a strong and striking attestation of the chronology of Scripture (the Hebrew Scripture and that alone) from the date of the Mosaic Creation to that very time; and yet it is supplied by something entirely *ab extra* to Scripture.

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[l] Fasti Catholici, ii. 218 sqq.

[m] Ibid. iii. 199–250. 250 sqq.

[n] Ibid. 499.

There is still another argument of the absolute epoch of the proper system of time of the actual course and succession of things at present; though it applies directly only to the Julian time of the system: or, if to the Natural also, yet only as constantly equated to the Julian and as constantly represented by it. No one requires to be told that to the uninterrupted succession of one and the same system of Julian time nothing is so essential, nothing is so indispensable, as the cycle of leap-year, and the cycle of 28 years which chronologers call the solar cycle. It follows that, if the actual course of things, which exists at present, always has had and still has its proper system of Julian time; that system always must have had and still must have its proper cycle of leap-year, and its proper solar cycle: and, what is more, that, if it has a particular cycle of leap-year and a particular solar cycle at present, it must always have had the same.

Now with respect to the cycle of leap-year actually in existence at present; it is scarcely necessary to remind the reader that we derive it directly from the Roman and Julian Correction of the Dictator Cæsar: and that, if every fourth year in the administration of Julian time at present is a leap-year, it is due, humanly speaking, to the fact that the first year of the Correction, the first year of the Julian Æra, at Rome, B. C. 45, was appointed by the author of the Correction to be a leap-year, and to have a leap-day; and actually was such a year and had such a day. But what made the Dictator Cæsar fix on the *first* year of the Correction, as the proper seat of the first leap-day of the Correction, instead of the *fourth;* which must have appeared *a priori* to be so much the more naturally pointed out by the reason of things as the proper first leap-year of the Correction? The true explanation of this seeming inconsistency is the fact that the cycle of leap-year of the Julian Correction was not an original institution of the Dictator Cæsar's. *This* cycle in *his* Calendar did but take up and continue a preexisting cycle of the same kind. It was derived from the cycle of leap-year in the Sothiacal calendar of the ancient Egyptians; with which Julius Cæsar became acquainted during his eight months' residence in Egypt, two years before his Correction of the Calendar at Rome.

If then we would go back to the epoch of the cycle of leap-year actually in use at present; we must go back not to the date of the Julian Correction, but to that of the Sothiacal among the Egyptians: and this being assumed to have been B. C. 1350[o], but its first cycle of leap-year, according to the strict Julian rule, to have borne date March 1 at midnight B. C. 1349; in order to discover whether its proper cycle of this kind was virtually in use from the beginning of things or not, we must go back cycle by cycle from March 1 B. C. 1349 to March 1 B. C. 4004. And this being done accordingly, after the revolution of 663 cycles of this kind, we come to March 1 B. C. 4001; as the date of the first complete cycle of the same kind which could actually have made a part of the present course and succession of things, if that really came into existence B. C. 4004.

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[o] Fasti Catholici, iii. 54 sqq.

It follows from this fact that there must have been *three* years, reckoned according to the rule of the proper Julian cycle of leap-year from March 1 at midnight B. C. 4004 to March 1 at midnight B. C. 4001, which were either an incomplete cycle of leap-year, according to the proper Julian cycle of that year, or the last three years of a complete cycle of that kind, the true epoch of which in exact conformity to the actual Julian rule must have been March 1 at midnight B. C. 4005. Now an incomplete cycle of leap-year in the constant decursus of one and the same system of Julian time, and at the very beginning of the whole, would be a great anomaly and a great difficulty; but three years even in the actual decursus of such a system, and even at the beginning of the whole, which made up the last three years of one of its proper cycles of leap-year, would be no anomaly and no difficulty whatsoever, on *one* supposition only: viz. That even the proper Julian time of the present system of things was connected *de facto* with the proper Julian time of a former system; the cycle of leap-year of which was the same with its own[p].

On this principle, it would make no difference to the proper cycle of leap-year of the present system of things, that its proper Julian time bore date in the *second* year of that cycle, not in the *first*. The first of its proper cycles of leap-year would be just as complete in *three* years, reckoned from March 1 at midnight B. C. 4004, as in *four*, reckoned from March 1 at midnight B. C. 4005: and its *second* complete cycle would begin in either case alike, in strict conformity to the Julian rule of the cycle, on March 1 at midnight B. C.

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[p] Fasti Catholici, ii. 35–58: 267 note.

4001. And though we cannot undertake to say how far the proper Julian time even of the present system of things does in reality pass beyond the epoch of March 1 B. C. 4004; yet thus much we may venture to say (because we have the warrant of Scripture to say it[q]) that its actual origin passes beyond that epoch: and for aught which we know to the contrary immeasurably beyond it. And if the proper Julian time of the system passes beyond that epoch, its proper cycle of leap-year passes beyond it also; and therefore the proper epoch of the first cycle of that kind which made part *de facto* of the present course and succession of things was March 1 B. C. 4005, not March 1 B. C. 4004.

Secondly, with regard to the proper cycle of 28 years, or Solar Cycle, of this system also; it is to be observed first of all that it makes no difference to the effect of this cycle from what year of the cycle of leap-year it may be assumed to be reckoned. Nothing is essential to it except that it should always be reckoned from the same; and that from any one of the years of the cycle, as its assumed epoch, to the same again there should be seven periods of four years complete, 28 Julian years, perpetually. This condition being prescribed and observed accordingly; this cycle of 28 years will serve the same use and purpose and produce the same effect under all circumstances of its application alike; viz. that of bringing back the 10 228th term in the constant succession of the Noctidiurnal cycle to the same Julian term in the Annual, and to the same *feria* in the Hebdomadal, in the same year of the cycle of leap-year. We say the 10 228th term in the Noctidiurnal succession; the number of Noctidiurnal cycles contained in one of these periods of 28 Julian years being 10 227 exactly. And this distinction being duly apprehended, and allowed to be just and reasonable, it will not appear extraordinary should it turn out to be the case that the epoch of the proper cycle of leap-year of the present system is one thing and that of its proper solar cycle is another; that the former passes *de facto* one year beyond the beginning of the system, the latter is attached *de facto* to the first year of the system itself.

Now we are made aware of this distinction by means of a very curious and interesting discovery; the process and result of which we had occasion to explain and illustrate in our former Work[r]. The discovery was made by inquiring into the nature and use of the Mediæval system of Concurrents and Regulars; which in former times served the same purpose as is served at present by the cycle of the Dominical letter: viz. that of indicating the *feria* of any other day in any other month of a given Julian year by means of the *feria* of the first of January in that year. In the process of working out and applying this system, and as the result of a series of tentative experiments, it was found out that even the Concurrents and Regulars were not competent to indicate this *feria* agreeably to the truth perpetually without the addition of a constant of 2; but that with that addition they would always shew it correctly.

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[q] Fasti Catholici, ii. 268 sqq.

Now the Julian year of chronology also has its proper solar cycle of 28 years; the same which is carried along with it backwards or forwards to any extent: and this antiquated system of Concurrents and Regulars, as first conceived and first reduced to practice, and as ever after applied, was adapted to this proper solar cycle of the proper Julian year of chronology exclusively. The Julian time of our Tables also has its proper solar cycle; which begins in its very first year, B. C. 4004, and is not once interrupted from that year to the end of the Tables. Now when the solar cycle of chronology is reduced to this solar cycle of our own Tables, it is found that the *first* year of the former is the *twentieth* of the latter; and also that, in the proper cycle of the Hebdomadal character in the solar cycle of the Tables, the Hebdomadal character (i. e. the Concurrent) of this *twentieth* year is *two;* which, in the corresponding year of the solar cycle of chronology, assumed as the zero or epoch of the cycle itself, was of course treated as if it had been 0: the consequence of which could not fail to be that, in the practical application of the system of Concurrents and Regulars adapted to this cycle, they would not answer the purpose intended, without a correction to compensate for this oversight; i. e. without the perpetual addition of this constant of *two:* but that with that addition they would answer it, and in fact they did, just as much as the Dominical letters at present.

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[r] Introduction to the Tables of the Fasti Catholici, 170–180.

From this very curious discovery then we must necessarily infer that the proper Julian time of the present world always had its proper solar cycle of 28 years; but such that the *first* year of the proper solar cycle of chronology was the *twentieth* of that: and, if so, that the proper solar cycle of the proper Julian time of the present system of things could not have differed from that of the Julian time of our own Tables, of which the same fact holds good. It follows consequently that the proper epoch of the Julian time of the present world must have coincided with that of one of these cycles of our own Tables; either that of the first, B. C. 4004, or that of some other 28 years earlier, or 28 years later, at least: or rather, in strictness, with the epoch of one of our Julian Periods of four or of five of these cycles alternately, (112 years or 140 years,) earlier or later than B. C. 4004.

To the proper arguments therefore of the actual epoch of the proper Julian time of such a course and succession of things as that which is actually going on at present, these two may undoubtedly be added; the epoch of its proper cycle of leap year, and that of its proper solar cycle of 28 years. Its actual epoch must be compatible with that of both; and, if it was B.C. 4004, it is compatible with that of both: with the former, as the *second* year of its proper cycle of four years, with the latter as the *first* year of its proper cycle of 28 years. And though each of these tests and criterions is properly applicable only to the Julian time of the system, or to the Natural also only as constantly equated to and constantly represented by the Julian; there is another argument of the same thing which is applicable to both in conjunction: and goes to the proof of the fact that the Julian time of the system, and the Natural time of the system, must both have taken their rise on the first day of the mean Julian time of the system and on the first day of the mean Natural; and both at the same time of the day for the proper meridian, and that day April 25 B. C. 4004 in either case alike. Nor perhaps will it be the least recommendation of this argument in the opinion of many of our readers, that it is founded entirely on the astronomical characters of the true Julian time of such a system of things as the present in conjunction perpetually with the true Natural. It is in fact the argument briefly adverted to *supra*[a]; but in order to its being explained more in detail purposely reserved for the present opportunity.

For if the proper Julian annual time of the system did really take its rise in conjunction with the proper Natural annual time of the system, and both came into being on the same day, and both at the same time on that day, yet the one on the Julian April 25, the other at the mean vernal equinox; then this coincidence must hold good ever after: viz. that the mean longitude of the Julian April 25, beginning with 0° 0′ 0″, must go on increasing by a constant quantity for every mean Julian year of the system; and that constant quantity must be the annual increment of the mean Julian time of the system on the mean Natural in terms of the mean solar longitude of the system perpetually.

Let us be permitted to assume that this annual increment is the arc of the sphere which according to the mean motion of our own Tables measures in motion the difference in time of the mean Natural annual time of our Tables and the mean Julian, 11 m. 9·6 sec. i. e. 27″·499 556 800 953 54. And that being assumed, let us take a year which stands at the distance of a certain number of complete cycles of leap-year from B. C. 4004; that is, A. D. 1801, A. M. 5805; between which and B. C. 4004 there are 1451 cycles of leap-year, 5804 mean Natural and mean Julian years alike.

Now in 5804 mean Julian years the annual increment in mean longitude would accumulate to

27″·499 556 800 953 54 × 5804;
i. e. to 159 607″·427 672 734 346 16
or 44° 20′ 7″·427 672 734 346 16.

If then the mean Natural annual time and the mean Julian annual of the system both took their rise on the Julian April 25 at 0 h. 0 m. 21·6 sec. from midnight, (for the proper meridian,) B. C. 4004; the mean longitude of April 25 B. C. 4004 at that time must have been 0° 0′ 0″, and A. D. 1801 at the same time ought to be 44° 20′ 7″·427 673. To put this to the test, let us calculate first of all the mean longitude of April 25 A. D. 1801, at 0 h. 0 m. 21·6 sec. from our own Tables.

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[a] Page lxxvii.

First then, we have the mean vernal equinox of the Tables, A. D. 1801, properly corrected, for their own meridian,

		h.	m.	s.
March 11		0	27	43·2
Add	44	23	32	38·4
And you come to April 25		0	0	21·6

Next, with the mean motion of our own Tables, we have

							h.	m.	s.
A. D. 1801	S L =	0°	0′	0″	March	11	0	27	43·2
Add		44	20	7·428		44	23	32	38·4
we have	S L′ =	44	20	7·428	April	25	0	0	21·6

We see then that the actual mean longitude of April 25 A. D. 1801 at 0 h. 0 m. 21 . 6 sec. was truly 44° 20′ 7″ ·428; and consequently equal at that time to the actual movement in mean longitude in 5804 years, from April 25 at 0 h. 0 m. 21·6 sec. B. C. 4004 to April 25 at 0 h. 0 m. 21·6 sec. A. D. 1801. And this must be decisive that, if the proper mean Julian time of our Tables and the proper mean Natural set out together, in a certain state of relation to each other, in this year B. C. 4004, they were still exactly in the same relation to each other, *mutatis mutandis*, in the 5805th year of the decursus of each, A. D. 1801.

Now such being the state of the case with respect to the relation of the mean Julian time of the Tables to the mean Natural or equinoctial at the beginning of this 5805th year of the decursus of each, A. D. 1801, and with respect to the character which the former must derive from its relation to the latter perpetually; if the mean Julian and the mean equinoctial time of our Tables profess to be the mean Julian and the mean equinoctial time of the present system of things from the first, what have we to do, in order to test the truth of this profession, except to compare the character which April 25 A. D. 1801 was deriving at this time from its relation to the proper equinoctial time of our Tables, with the proper character of the same day in the same respect, not obtained or known from our Tables, but from some other quarter? The means of this comparison are the Astronomical Tables of the present day, distinct from our own. The character in question is an astronomical character. It is that of the mean solar longitude of a particular day in a particular year; and the mean longitude of every day and in every year is given in the modern Tables. Let us therefore compare the mean longitude of April 25 A. D. 1801, at mean midnight, according to our Tables, with the mean longitude of the same day at mean midnight in the same year, according to the Tables of Delambre.

The mean longitude of April 25 in this year, at mean midnight exactly, for the meridian of our own Tables was

$$44^{\circ}\ \ 20'\ \ 6''\cdot 541$$

and for the meridian of Greenwich was

$$44^{\circ}\ \ 25'\ \ 53''\cdot 448$$

The mean longitude of May 7 (N. Style) April 25 (Old Style) A.D. 1801 at mean midnight, for the meridian of Greenwich, according to the Tables of Delambre was

$$44^{\circ}\ \ 21'\ \ 5''\cdot 82\ *$$

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* A. D. 1801, we have,

	°	′	″			h.	m.	s.	
S L =	44	20	6·541	April	24	21	39	13	At Greenwich.
+		5	46·907		=	2	20	47	
S L =	44	25	53·448	April	25	0	0	0	At Greenwich.

Delambre's standard of the mean diurnal motion in longitude is

$$0^{\circ}\cdot 985\ 647\ 159\ 479\ 9$$

and this multiplied by 126 =

$$124^{\circ}\cdot 191\ 542\ 094\ 467\,4$$

or

$$124^{\circ}\cdot 11\ \ 29\cdot 551\ 540\ 082\ 64$$

And 12 hours' mean motion with his standard =

$$29'\ \ 34''\cdot 164\ 9$$

Now, according to the Tables and Formulæ of the late Mr. Baily, the mean longitude of Jan. 1 (N. S.) A. D. 1801, at mean noon for the meridian of Greenwich, according to Delambre was 280° 39′ 10″·43.

		h.				°	′	″
Hence Jan. 1	at	12			S L =	280	39	10·43
		— 12				—	29	34 164 9
Jan. 1	at	0	0	0	S L =	280	9	36·27
Add 126					=	124	11	29·55
May 7 N S = April 25,	at	0	0	0	S L =	44	21	5·82

There was consequently a difference in the mean longitude of this same Julian term, in the same year A.D. 1801, and at the same moment, that of mean midnight exactly, according to our Tables and according to Delambre's respectively, of

4′ 47″·63

but no more. And, if it can be shewn that even this difference and at this time was something accidental, it will follow that there was in reality no difference at all; or none which was material.

Now *this* can be shewn. The mean standard of the Natural year according to the Tables of the Fasti is a somewhat smaller quantity than the standard according to Delambre. The mean motion in longitude of our Tables is consequently slightly more accelerated than that of the Tables of Delambre. The difference of standards for one year is 0·000 013 965 9 day: and an annual difference of that amount in 5804 years would accumulate to 1 h. 56 m. 43 · 418 423 04 sec. Now 1 h. 56 m. 43 · 418 423 04 sec. of mean solar time in the mean motion of our Tables = 4′ 47″· 62. The difference of longitude, (that of April 25 at mean midnight according to our Tables, and that of the same day at the same time, according to Delambre,) and in the same year in each, A. D. 1801, was 4′ 47″·63 also. No one can doubt then that it is ultimately resolvable into the difference of standards, and the difference of motions, just pointed out; and consequently that it is accidental: that the mean longitude of our own Tables, just at this moment, *minus* the difference of mean motion in 5804 years, would be the mean longitude of Delambre's just at the same; or *vice versa*, that the mean longitude of Delambre's just at this time *plus* the difference of mean motion in 5804 years would be the mean longitude of our own Tables at this same time also. It may therefore be set aside and not taken into account. It may be assumed, as the result of the comparison just instituted, notwithstanding this difference, that the true astronomical character of the first day of the 5805th mean Julian year of our Tables, derived from its proper relation to the first day of the 5805th mean Natural year of the Tables also, was entirely the same with the true astronomical character of April 25 A.D. 1801, derived from its proper relation to the mean vernal equinox at that time also. What can be inferred from this coincidence except that April 25 A. D. 1801 was absolutely and entirely the same with the first day of the 5805th mean Julian year of our Tables; and that the mean vernal equinox, A.D. 1801, was absolutely and entirely the same with the first day of the 5805th mean Natural year of the Tables? and what can be inferred from both these facts, except that April 25 must be the actual Julian date of the actual Julian time of the present system of things; and the mean vernal equinox the actual Natural date of the actual Natural time of the same system: and that neither could be more or less than 5804 years old, the one on April 25 at mean midnight, A.D. 1801, the other at the mean vernal equinox, the same year?

Lastly, among the other arguments of the actual beginning of the present system of things, derived from the science of astronomy in particular, and among the other tests and criteria of its proper astronomical characters, we must not omit to mention that the epoch, assigned it by Scripture, and the epoch, assigned it by every other testimony distinct from Scripture, B. C. 4004; was very probably an astronomical epoch also of a remarkable kind, and of great importance: viz. the time when the Axis Major of the solar orbit coincided with the line of the equinoxes. The calculations at least which have been instituted by the most eminent physical astronomers in modern times, to determine the epoch of this coincidence, approximate to this date, and some of them very closely: though none of them assigns it in terms exactly[t]. But it seems to be agreed upon all hands that the utmost which can be expected from calculations of this kind, carried so far back, is an approximation to the truth. That all of them then *approach* to this date in the present instance, yet with more or less of aberration from it within certain limits; is an argument in its favour, rather than otherwise. It would have cast discredit on this date, if calculation had uniformly assigned it; it tends to confirm it, that all such calculations come very near to it, and yet that none of them actually touches it. The perfection of modern astronomy accounts for the approximation to it; the remoteness of the epoch itself for some degree of aberration from it.

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[t] Fasti Catholici, ii. 130 sqq.

But with respect to the fact of such a coincidence, and its importance to the question of the Natale Mundi, B. C. 4004, it is threefold: i. If the axis major did really at that time coincide with the line of the equinoxes, the mean equinoxes did really at that time also coincide with the true; and it would make no difference at that time whether the proper equinoctial time of the system just coming into being were to be reckoned from the former or from the latter. ii. If the axis major was really at that moment coinciding with the line of the equinoxes, the mean and what is commonly called the true, in the sense of the apparent, solar time of the system would coincide at that moment also[u]. iii. If the axis major was really then coinciding with the line of the equinoxes, the mean anomalistic time of the system would have the same origin as the mean Julian and the mean natural: the first mean anomalistic year, and the first mean natural year, and the first mean Julian year, of the system would all take their rise together at the point of the mean vernal equinox B. C. 4004[x].

And as the present system of things has its mean sidereal time as well as its mean natural, and its mean anomalistic, and its mean Julian; to the other astronomical characters of this epoch of B. C. 4004, we may add also that it was the origin of the proper mean sidereal time of the present course and succession of things, as much of any other species of time proper to it and characteristic of it. It has been shewn in our former Work[y] that the first mean sidereal year and the first mean natural or tropical year came into being simultaneously at the mean vernal equinox B. C. 4004: and that, still more clearly to point out and designate the epoch of the true mean sidereal time of the system in its proper relation to the true natural or equinoctial even in that first instance, when the sun was on the vernal colure, B. C. 4004, two remarkable stars, Beta and Zeta Tauri, were on it and close to it also. The sun is still in conjunction with those stars simultaneously on the proper day in every year, and the day of that conjunction is still the first day of the sidereal year of the system for the time being; and the mean longitude of that day and the mean sidereal time of that day at the proper time and for the proper meridian are still the true astronomical characters of the system, derived from its relation to the true tropical and the true sidereal time of the system in conjunction perpetually.

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[u] Fasti Catholici, ii. 135.

[x] Introduction to the Tables of the Fasti Catholici, 202 sqq. 243.

[y] Fasti Catholici, iii. 258 sqq. iv. 146 note. Introduction, 241. 260.

And now we have probably insisted on every argument and every consideration to which an appeal could be made for the decision of such a question as this of the Natale Mundi, treated as one of *fact;* which must be determined by testimony or by matters of fact equivalent to testimony. We have at least omitted nothing of this kind which has come to our own knowledge from any quarter; and we flatter ourselves that we have produced more than enough for the conviction of any candid and unprejudiced inquirer: whose sole object was the discovery of the truth, and who was prepared beforehand to allow every argument of the truth, which should be submitted to his judgment, its proper weight and force. The result of all these different tests and criteria of the truth on this particular question of fact is the same; viz. that the absolute epoch both of the Natural and of the Julian time of the present system of things, and therefore the true Natale Mundi, was April 25 at midnight, B. C. 4004: the first day of the proper Noctidiurnal cycle, the first of the proper Hebdomadal cycle, the first of the proper Natural year, and the first of the proper Julian year, of the system.

There are still two other questions, intimately connected with this, on neither of which has any thing yet been said; one, that of the meridian, to which the mean Natural time and the mean Julian time of the system must have been adjusted from the first; the other, that of the standard by which the mean Natural time and the mean Julian time of the system must have been measured from the first. It would not be proper to take leave of the question which we have hitherto been considering without some notice of each of these questions also, which have so much to do with it.

Now with regard to the first; it is agreed among chronologers and astronomers that the unit or integer of time, (the absolute measure of duration in the form of time,) is the diurnal rotation of the earth and its proper measure: and it is also agreed that the actual measure of the diurnal rotation, as going on at the same rate and completed in the same interval of duration perpetually, is the mean sidereal day[z]—a smaller quantity by a stated amount than the integral period of 24 hours of mean solar time. But it is also agreed that another unit or integer of time, another absolute measure of duration in the form of time, is the mean solar day; i. e. the integral period of 24 hours of mean solar time, neither more nor less, itself perpetually[z]. It requires no argument to prove that the proper measure of the duration of the present system of things, in terms of its proper unit or integer perpetually, is the mean solar day, not the mean sidereal day. The proper Julian time of the system, and the proper Natural constantly equated to the Julian, are made up of mean solar, not of mean sidereal, days; of integral periods of 24 hours of mean solar time: in one word, of Noctidiurnal cycles, in the sense of such periods perpetually.

Here then the distinction of meridians comes in. The mean solar day, the Noctidiurnal cycle, the integral period of 24 hours of mean solar time, is the same *per se* under all circumstances of its application; but its proper epoch cannot be every where the same. It is under all circumstances, and every where, the interval, measured in mean solar time, between the passage of a given meridian in one instance under the mean sun, and the passage of the same meridian in the next instance under the mean sun; and it is every where the interval of 24 hours of mean solar time exactly. But as meridians pass under the sun one after another; though the length of this interval between two consecutive passages of the same meridian may be the same for all, the epoch or beginning of the interval is not and cannot be the same for all. It must be earlier for some, and later for others, according to the order of the meridians themselves, and the distance of one from another; only after a certain fixed rate or proportion, determined by that of the diurnal rotation: viz. that of

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[z] Fasti Catholici, i. 47 sqq.

4 minutes in mean solar time for every degree in longitude, and one hour of the former for every fifteen degrees of the latter.

Now forasmuch as the natural means by which one meridian after another is presented to the sun is the diurnal rotation, and forasmuch as the diurnal rotation is performed in one direction, i. e. from west to east, perpetually; it follows that, assume what point as the zero or epoch of the rotation you may, the points to the west of that in the circumference of the equator, or of any circle on the circumference of the earth parallel to that, will be successively presented to the sun by the rotation, before the points to the east of it: those which are nearest to the zero or epoch first, and those which are furthest from it last: and yet every point in one and the same circumference, defined as above, will be successively presented, and in its turn, in the compass of the same 24 hours of mean solar time which will measure the interval between the departure of the zero or epoch from under the mean sun to its return under it again. And from this state of the case, which is only repeated and reiterated with successive revolutions of the earth about its own axis perpetually, two inferences are justly deducible; *one* that the natural order of meridian passages is from east to west, not from west to east, of the zero or epoch of the rotation—the order in which meridians are actually presented one after another to the mean sun: the *other* that every meridian must have its proper measure of duration, and a measure in each instance the same in itself, (a mean solar day, a noctidiurnal cycle, an integral period of 24 hours of mean solar time, proper to and characteristic of itself, and of its own returns to the mean sun perpetually,) in the *local* time of that meridian; but no meridian can have such a measure both in its own local time, and in the absolute cycle of the period of 24 hours from the first perpetually, except the meridian of the epoch: the meridian which passes through the zero or epoch of the rotation itself, the point first by hypothesis presented to the sun[a].

Now the absolute epoch of this period is the absolute beginning of the proper Natural and the proper Julian time of the present system of things. And if even the first period or cycle of this kind must have been measured or measurable by the diurnal rotation, even the first cycle of this kind must have been referred to some proper meridian. There never was, nor in the nature of things could be, an integral period of 24 hours of mean solar time in terms of the diurnal rotation, which was not referrible to some meridian; if there never was a time at least when the earth did not revolve around the sun, as well as about its own axis: and there never was any which at one and the same time was referrible to more than one meridian. The very first period of this kind could have been no exception to this general law of all such periods. It would be just as absurd to suppose that even that must not have been referrible to some meridian, as that it could have been referrible to more than one. The question is only To what meridian? and that question, *prima facie*, it must be allowed would seem to be difficult to be answered: for, as we have stated it, it is neither more nor less than that of the PRIMARY MERIDIAN; and the question of the Primary Meridian has passed hitherto with chronologers and astronomers for an insoluble problem.

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[a] Cf. Fasti Catholici, ii. 58 sqq.

And yet there does not seem to have been any good reason in the nature of things why even this problem should have been considered incapable of solution; at least in the estimation of Christian astronomers, or of men of science, who professed to be Christians, and to believe in the Bible, and in what they found upon record there. On the contrary, if Christian chronologers and astronomers had brought their Christian convictions and belief (as they were bound to do) along with them, even to the solution of such a problem as this, they must have come to the investigation of the truth in this respect, predisposed to find it, (where in all probability it was to be found,) in the meridian of the ancient Jerusalem. It requires no argument to satisfy a Christian at least that, if there was any one locality on the face of the whole earth, more important in the estimation of its Creator, more intimately connected with the times and seasons of the most remarkable of his own dispensations, more distinguished by himself in every respect, more sacred, more prominent, more dignified, than another, and therefore more likely *a priori* to have supplied the primary meridian than any other, it must have been that of the ancient Jerusalem[b].

But as reasons or considerations *a priori* can never be decisive on a question of fact; let us be permitted to assign *two* matters of fact (one, taken from the course and succession of mean Julian time, the other, from the course and succession of mean Natural), which appear to us to bear directly on this question of the Primary Meridian, and where it is to be assumed. The former of these is the fact that, when twelve hours of mean solar time were first added to the absolute length of the Noctidiurnal cycle by the miracle of Joshua, the addition was made critically at 6 A. M. of mean time for the meridian of Jerusalem; and, when twelve hours of mean solar time were again added to the absolute length of the cycle by the miracle of Hezekiah, the addition was made critically at 6 P. M. mean time for the meridian of Jerusalem. We can draw no inference from these facts but *one;* viz. that the absolute length of the cycle, the period of 24 hours of mean solar time itself, must have been originally adapted to the meridian of Jerusalem: and therefore that the meridian of Jerusalem must have been the Primary Meridian.

The matter of fact in the second instance is this; viz. That the mean Natural or equinoctial time of the present system of things being adapted to April 25 at 0 h. 0 m. 21·6 sec. from midnight B.C. 4004, exactly as it stands in our Tables; it is thereby critically adapted to the meridian of the ancient Jerusalem: yet not as the effect of *our* assumptions and of *our* arrangements, but of the truth itself. We have ascertained indeed, as our readers have been made aware in the preceding pages, from a variety of data, that there was good reason to conclude that the true equinoctial time, and the true Julian time, of the present system of things must have come into existence at once, in this year, B.C. 4004, and on this day, April 25, in that year, and at this time of the day, April 25 at midnight; but we have not ascertained from any quarter, or from any testimony either in Scripture or *ab extra* to Scripture, that both came into being at this time preadjusted to a certain meridian as well as to each other. And though it might be evident to our own reason that both must have come into being adapted to *some* meridian; who could have undertaken to designate that meridian, except conjecturally?

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[b] Fasti Catholici, ii. 63.

If then we have been made aware of the fact that the mean equinoctial time of the present course and succession of things was really adapted to one particular meridian, it has been in a very different way; viz. by means of an exact and critical comparison of the mean equinoctial time of our own Tables, adjusted to this epoch of April 25 at 0 h. 0 m. 21·6 sec. B.C. 4004, with that of the most approved modern Tables: for instance with that of Delambre's Tables. These modern Tables are adapted to the meridian of Paris or of Greenwich: and it is found, as the result of this comparison between our own and these, that, after allowance has been made for every circumstance of distinction in other respects between the mean equinoctial time of *our* Tables and the mean equinoctial time of *these*, a difference remains which is not resolvable into any thing accidental; a difference of an uniform nature and of a stated amount: and *this* amount precisely *that* which exists *de facto* between the meridian of Paris or of Greenwich and that of the ancient Jerusalem[c].

It follows from this fact that the mean equinoctial time of our own Tables, as adjusted originally to this epoch of April 25 at 0 h. 0 m. 21·6 sec. from midnight B.C. 4004, and deduced from that perpetually, was adapted at first, and is still adapted, as critically to the meridian of the ancient Jerusalem, as that of the Tables of Delambre to the meridian of Paris or of Greenwich. And this being entirely a spontaneous and unstudied coincidence between the arrangements of our Tables and the matter of fact, and discovered only in this way of a comparison of the former with the actual course and succession of things at present; it is demonstrative that the mean equinoctial time of our Tables is adapted *de facto* to the meridian of Jerusalem: and it is scarcely less than demonstrative, in our opinion, that mean equinoctial time from the first must have been adapted to that meridian likewise. The argument last proposed has rendered it equally certain or equally probable that mean Julian time also was first and properly adapted to it; and the truth of either of these things is virtually a proof of the other: for every thing as yet discovered of the nature, relations, decursus of each of these two kinds of time leads only to one conclusion; viz. That the origin of both must have been simultaneous; That each must have been critically adapted to the other from the first; That each must have stood in the same relation to any thing else as the other from the first: and in particular That, if mean Julian time was adapted from the first to a certain meridian, mean Natural could not possibly have been accommodated to a different one; because mean Julian time even from the first was the type and expression of mean Natural.

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[c] Fasti Catholici, iv. 503 sqq.

And this brings us to the second question which still remains to be considered; that of the standard by which the mean Julian time and the mean Natural time of the present system of things must have been measured from the first respectively. Now with regard to the standard of the mean Julian year; it seems almost superfluous to raise any question about it at all. There is but one abstract conception, or idea, of the *mean* Julian year; that of 365 entire days and of a quarter of one day more: that of 365 days and 6 hours of mean solar time perpetually. There might be various ideas and various standards of an *actual* Julian year; of a year which should consist of a certain number of integral cycles of day and night for a certain number of such years, and then in some one year of a certain number more: and there have been many actual Julian years of this kind. There have been Julian years, each of which consisted of 365 days and nights and no more for 119 years in succession; followed by one which consisted of 395: and there have been Julian years which consisted of 365 days and nights, and no more, for 51 years in succession; followed by a 52d, which consisted of 378. But the *mean* standard even of such *actual* Julian years as these was conformable to the abstract idea of the mean Julian year itself, 365 d. 6 hours. And that *this* is the true conception, idea, or exemplar of that kind in the abstract, to which the actual Julian time of the present system of things has been accommodated from the first, is proved by the actual cycle of its leap-year; which has never been any but the cycle of *four* years: the natural cycle of leap-year of the abstract idea of the mean Julian year itself.

Secondly, with regard to the abstract idea or standard of the Natural time of the system; the conclusion at which we have just arrived concerning that of the Julian is of much importance. If the proper mean Natural time and the proper mean Julian time of the present system of things have never *de facto* been separated; if both came into being at once in a common relation to their proper system; and if both have gone on together in the same relation to that system; we must necessarily infer from this state of the case that they were always intended by the Author of both to come into existence together in this common relation, and to go on together perpetually in the same relation: and therefore that the abstract idea or type of the one must have been critically accommodated from the first to that of the other.

Now this abstract idea or type of the mean Natural year, according to the standard of our Fasti, is that of 365 d. 5 h. 48 m. 50 s. 24th. or 365 d. 5 h. 48 m. 50·4 sec. or 365·24225 d. And the corresponding idea or type of the mean Julian year is that of 365 d. 6 h. or 365·25 d. And we will venture to say that there is no standard of mean Natural annual time which is so critically adapted to mean Julian perpetually, as this of 365·24225 d. to that of 365·25 d.[d] In no standard but this is mean Natural time so well calculated to go on for eternity, constantly accompanied by mean or actual Julian, and constantly represented by mean or actual Julian; at all times within certain limits commensurable with it, and at stated times scarcely distinguishable from it. And as the more the history of time is investigated from first to last, and the better it is understood, the more numerous and more clear are the proofs of the control and superintendence, by which time itself has been uniformly made subservient to the purposes of a Supreme Power, which it brings to light; no right-minded person can doubt for a moment that all great and permanent changes in the reckoning of time in particular must have made part of this Providential control and superintendence of the course of things; must have entered the plan and made part of the details of a preconcerted scheme; must have been critically adapted to each other, and to the first principles of the system itself. If the equable solar year of the beginning has been superseded by a different kind of year almost as generally as it was once in use; no doubt it has been Providential: and if the kind of year which has superseded it almost every where is almost every where the Julian; that too is Providential. The first correction of the Primitive year on the Julian principle was made in Egypt, 1800 years before the time of the Dictator Cæsar[e]; and yet even that, in the effect which it was destined to produce, contained the germ of the Julian Correction of Cæsar. The Sothiacal correction of later date among the Egyptians also[e], as still more directly preparing the way for the Julian of Cæsar, was still more providential: but the Julian Correction itself, we may boldly say, in its proper order of time was the most Providential of all; and is most distinctly proved to have been so by the many extraordinary circumstances which were made to concur and conspire together, in order that it might take full and complete and permanent effect just at the proper point of time. It is evident therefore that, next to the mean Natural year itself (the true abstract idea of the measure of time by the year), nothing has been so important an element in the constant measurement and decursus of time as the mean Julian year: from which we may reasonably infer that the true type and exemplar of either of these in the abstract must always have been that which approached most nearly to that of the other; and therefore that, if the mean standard of the Julian year was the one, the mean standard of the Natural year of our Fasti must be the other. For as another, and a still more striking, argument of the adaptation of one of these to the other, we may adduce even the Gregorian Correction of the Julian Correction itself. The object of that Correction was to realise a perfect and faultless idea of the mean Natural year in terms of the mean Julian perpetually; i. e. such a relation between these two things as we suppose to have been established between them by the Author of both from the first. It is agreed that it failed in this object; or only partially succeeded in the attainment of it: and that the cause of the failure was the assumption of a faulty idea or standard of the mean Natural year as destined to be represented in this manner by the mean Julian; and a standard which erred in *excess* not in *defect*. And that being the case; the observable circumstance is that the idea or standard of the same kind, which corrects this error of excess, and if it had been adopted at the time would have realised the object of the Gregorian Correction as completely in practice as in theory, is the standard of our Fasti[f].

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[d] Fasti Catholici, ii. 27 sqq: iv. 550 sqq.

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[e] Fasti Catholici, iv. 171 sqq.

Again, it is peculiar to this standard, so far as we know, to bear exactly the same relation, as the absolute measure of Annual time, to each of the absolute measures of Diurnal, the mean sidereal day and the mean solar day: and that too is a property which it might be supposed *a priori* would characterize the *one* measure of time by the revolution of the earth about the sun, relatively to the *two* measures of time by the revolution of the earth about itself. It is at least the case, that 365·24225 of mean solar time are equivalent to 366·24225 of mean sidereal time; and that 365·24225 divided by 366·24225 will give the most exact value of the mean sidereal day in terms of the mean solar, and 366·24225 divided by 365·24225 will give the most exact of the mean solar day in terms of the mean sidereal[g].

Again, this standard of the mean Natural year, 365·24225 d, might safely be submitted to any competent person, and would have nothing to fear from his judgment concerning it. No astronomer, no chronologer, no one who was qualified to pronounce on such a question as this, even among the almost endless diversity of standards of this kind which have been proposed both in ancient and modern times[h], could see any thing to object to this in particular *per se;* or why it might not be the true abstract conception of Nature's own designation: fixed and invariable in itself, and always agreeable to the reason of things; and as much opposed to an actual and variable standard of the same kind of excess at one time, as to one of defect at another. La Place in particular has left his opinion on record that, all things considered, chronologers and astronomers might agree to acquiesce in this, for all practical uses and purposes[i].

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[f] Fasti Catholici, ii. 31.

[g] iv. 147, 148. Introduction to the Tables, 253.

[h] Fasti Catholici, i. 75.

But, as opinion can never be decisive on any question of fact, the attention of the reader should by all means be directed in this instance also to a very remarkable coincidence; viz. That the more exactly the actual course of mean equinoctial time can be determined by observation at present, the more it agrees with the same thing as represented in our Tables perpetually. The mean motion of Delambre's Tables is somewhat more retarded than that of ours; and therefore his mean longitude and mean sidereal time and mean equinoctial time also at a given epoch are proportionably different from ours. We have produced one example of this difference in the mean longitude of April 25 A. D. 1801, according to his Tables and to ours respectively. And yet the absolute epoch or origin of Delambre's mean motion, or mean equinoctial time, appears to have been entirely the same with that of our own Tables.

The meaning of this is That, if you take the mean equinoctial time of a particular year at present from Delambre's Tables, and after reducing it from the meridian of Paris to that of Jerusalem, compare it with the mean equinoctial time of the same year, exactly as it stands in our Tables; there will be a certain difference between them, by which Delambre's will be so much later than ours: but if you go back year by year from this common point of departure in both with Delambre's standard and with that of our Fasti respectively; this difference will become less and less, in proportion to the difference of standards, every year: and just when you arrive with both at April 25 0 h. 0 m. 21·6 sec. exactly B. C. 4004, (the epoch of mean motion in longitude and of mean equinoctial time itself, if we are right in the caonclusions to which we have already come,) it will then, for the first time, be reduced to nothing and disappear.

Such is the fact; of which we have been made aware by an actual comparison of the mean equinoctial time, the mean longitude, and the mean sidereal time, of our own Tables with those of Delambre's Tables[k]. We shall not attempt to explain it; because it probably involves considerations proper only for the astronomers. Yet we beg to recommend it to the notice of men of science. It is, in every point of view (to our own apprehension at least), a singular and interesting discovery, that, between the most approved of the modern Tables and our own, after the lapse of so many thousand years, over and above the difference of meridians, there is none apparently but what is simply the effect of *time;* simply a *cumulative* effect of that kind: a difference which was 0° 0′ 0″ at the epoch or origin of our Tables, and is only in proportion to the time elapsed from the epoch at present. Must we not infer from this fact, that, if the modern Tables are true at present, ours must be so B. C. 4004?

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[i] Fasti Catholici, iv. 521.

[k] Ibid. iv. 503 sqq.

Lastly, though modern astronomy very properly acknowledges no authority for the decision of such questions as these but Theory founded on Observation and corrected and improved by Observation, yet *tradition* and *testimony* step in here too; and claim to be heard on this question of the standard of the mean Natural year, actually recognized among mankind from the first, as one of fact at least. It is discoverable, from the analysis of the Phœnix Period, that the standard assumed by the ancient Egyptians, within 500 years of the Deluge, was precisely *this*, of our own Tables[1]; and as we have seen every reason to be convinced that the astronomy of the most remote antiquity did not rest on observation, but solely on prescription; we infer from this fact that, if this standard was recognized 500 years after the Deluge, it was in all probability the standard of the Antediluvian world, handed down to the Postdiluvian: and that, if it was the traditionary standard of the Antediluvian world, it was in all probability as old as the beginning of things; and if so, that it was never discovered or determined by men for themselves, and yet was probably familiar to their ideas and apprehensions from the moment when they came into existence.

Let us therefore conclude with a summary recapitulation of the structure and details of the Fasti Catholici; for the benefit of such of our readers as may not yet be acquainted with that Work.

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[1] Fasti Catholici, iii. 499 sqq: iv. 144 note.

i. In the system of time, entitled Fasti Temporis Catholici, the three measures of time, which only are really distinct, which only have a real existence in the present constitution and state of things, (yet none of them apart from the other two,) and which only discriminate DURATION from TIME, the NOCTIDIURNAL, the MENSTRUAL, the ANNUAL, are comprehended severally, jointly, and perpetually.

ii. The Primary element of the Noctidiurnal time of the system is the Noctidiurnal cycle, the equable period of 24 hours of mean solar time. The Noctidiurnal time of the system is carried on in a succession of cycles of this kind which has never varied but *once;* when a certain numerical cycle in its proper order of succession for special reasons came to consist of 48 hours of mean solar time, instead of 24.

The Noctidiurnal time of the system includes the Hebdomadal. The Hebdomadal cycle of the system is the Noctidiurnal, reckoned by seven numerical cycles at a time perpetually. The order of the Noctidiurnal cycle in the Hebdomadal is the order of FERIÆ. The Hebdomadal time of the system is carried on in a succession of cycles of *feriæ* of this kind, which never has varied except to the same extent and for the same reason as the Noctidiurnal; when a certain numerical cycle of *seven feriæ* came to contain *eight* integral periods of 24 hours of mean solar time, instead of *seven.*

iii. The Primary element of the Menstrual time of the system is the mean Lunar Month of the system. The mean lunar month of the system is the equable period of 29d. 12h. 44m. 2s. 33.1915th. or 29d. 12h. 44m. 2.553s. of mean solar time, or Noctidiurnal cycles of the system.

The Menstrual time of the system is carried on in a succession of menstrual cycles of this kind, which has never varied; reckoned, according to a positive rule and for a limited number of years, at 29 and 30, or 30 and 29 days and nights, alternately. This limited number of years is the Hipparchean Period of 304 mean Julian years.

iv. The Primary element of the Annual time of the system is the mean Natural solar or tropical year. The mean Natural solar or tropical year of the system is the equable period of 365d. 5h. 48m. 50s. 24t. or 365.24225 of mean solar time, or mean solar days and nights.

The Natural annual time of the system is carried on in the form of the Civil annual. The Civil annual time of the system is the annual Julian time of the system. The annual Julian time of the system is the equable period of 365d. 6h. of mean solar time, or 365.25 mean solar days and nights.

The Natural annual time of the system is carried on in a succession of cycles of the Natural year of the system, which has never varied. The Civil annual time of the system is carried on in a succession of cycles of the Julian year of the system, reckoned, according to a positive rule, at 365 mean solar days and nights every *three* years and at 366 every *fourth*, which has never varied except *once;* when a certain numerical year of the system came to contain one integral period of 24 hours of mean solar time more than usual.

v. The absolute EPOCH or ORIGIN of the Noctidiurnal, the Hebdomadal, and the Annual (both Natural and Julian) time of the system is simultaneous; the *feria prima* of the first Hebdomadal cycle of the system, reckoned from midnight; the mean vernal equinox in the first annual cycle of the system, reckoned at 0 h. 0 m. 21·6 s. from midnight, for the meridian of the system; and April 25 at 0 h. 0 m. 21·6 sec. from midnight also, in the Julian style of the first Julian year of the system, B. C. 4004. The absolute EPOCH of the Noctidiurnal, the Hebdomadal, and the Menstrual time of the system is relatively simultaneous with the former also; the *feria quinta* of the first Hebdomadal cycle of the system reckoned from midnight; the *Luna prima* of the first integral lunar month of the system for the meridian of the system reckoned from midnight: April 29 at midnight B. C. 4004.

The Meridian of the system is the Meridian of the ancient Jerusalem.

vi. The Natural annual time of the system for a limited number of years is assumed to be absolutely the same with the Civil annual, or Julian, time of the system. The limit of this number of years is the number in which the mean Natural time of the system contains *one* integral period of 24 hours of mean solar time less than the same number of the mean Julian years of the system. The absolute measure of this number is 129 mean Natural years of the system, and 129 mean Julian; but by the positive rule of the system it is reckoned at 112 years and 140, or *vice versa*, 140 and 112, of either kind alternately.

The Natural annual time of the system therefore proceeds in the cyclical period of 112 or 140 mean Natural years of the system perpetually; and the Civil Annual or Julian proceeds with it also in the cyclical period of 112 or 140 mean Julian years of the system. And this cyclical period of 112 or 140 mean Julian years of the system is the JULIAN PERIOD of the system.

vii. The cycle of leap-year of the Julian Period of the system is the proper Julian cycle of *four* years; and the solar cycle of the Period is the proper Julian cycle of *twenty-eight* years: and the proper cycle of both in the Julian Period of the system for the time being is the proper cycle of both in the Natural time of the system also. The EPOCH of this cycle of leap-year in both is March 1 at midnight B. C. 4005; and the EPOCH of this cycle of 28 years, or solar cycle, in both is March 1 at midnight B. C. 4004.

viii. The Julian annual time of the system in constant conjunction with the Natural is carried on from Period to Period in a succession of TYPES of the mean Julian year of the system; the relation of each of which to the mean Natural year of the system at the beginning of the Period is as nearly as possible that of equality; and by the positive rule of the system is assumed to be that of equality to the end.

The STYLE of the Julian Type of the Period for the time being is invariable, and agreeable to the properly Julian throughout. The style of the first day in the first Type and first Period is April 25, and that of every other day is in proportion to it: and the style of the first day in every subsequent Type and subsequent Period for a time is April 25 also. And the proper Julian style of every Julian term in one and the same Period is the proper Julian style of the corresponding Natural term also.

ix. The Julian time of the system in constant conjunction with the Natural from the ingress of Period i to the ingress of Period xxxv is carried on in a succession of VARIABLE Julian Types; and after the ingress of Period xxxv in one Type which is INVARIABLE.

It is assumed as the positive rule of the system that the Variable Julian Type is competent to represent one and the same Invariable Natural Antitype, of the annual time of the system, according to the proper Julian rule, so long as the *first* integral period of 24 hours in the mean Natural Period of 112 or 140 years, reckoned from midnight, coincides either wholly or in part with the *first* integral period of 24 hours in the mean Julian Period of 112 or 140 years, reckoned from midnight also; but no longer so, as soon as the *first* such integral period in the former is now coinciding with the *last* such period in the latter.

In the constant succession of the Variable Julian Types of the system one after another, the *last* day of the preceding Type in the *last* year of the Julian Period of the Type is assumed as the *first* day of the succeeding Type in the *first* year of the Period of that Type; and the proper *feria* of the *last* day of the preceding Type is assumed as the proper *feria* of the *first* day (the *feria* of *ingress*) of the succeeding Type: but the *style* of all these Types remaining the same throughout, the proper Julian style of the *first* day of the preceding Type is still the proper Julian style of the *first* of the succeeding.

It follows that the proper Julian style of a preceding Type, in comparison of the proper Julian style of the succeeding one, is Julian in comparison of Gregorian; and *vice versa*: and consequently that while there is a nominal difference between them perpetually, there is no real one.

x. The Natural annual time of the system recedes on the Julian through *one* integral period of 24 hours of mean solar time, one Noctidiurnal cycle, one term in the order of feriæ, in every Period, and in every Type, variable and invariable, alike. The Julian time of the system recedes on itself through one integral period of 24 hours of mean solar time, one Noctidiurnal cycle, one *feria* of the Hebdomadal cycle, in the Variable Type, but not in the Invariable. It recedes on itself, according to this law, from the ingress of Period i to the ingress of Period xxxv; but no longer.

xi. The Julian Type of the time being as soon as it enters the system in its proper order of time is set back to the beginning of the system itself; and the Natural Antitype of the Julian is set back with it: and both being assumed to have set out in conjunction from the first on the proper *feria* of *ingress* of *this* Type under the common Julian style of *all* the Types, April 25 at midnight; the Julian Type takes up the succession of Types in its proper order of time and place on the same *feria* of *ingress* and under the same Julian style of April 25 as at first: the Natural Antitype takes up the succession of Natural time along with this Type of Julian one term in the order of *feriæ* lower than the *feria* of ingress, and one term in the order of the Julian notation lower than April 25, for every Period between the first and this.

xii. The proper Julian style of the epoch of origination both of the Natural time of the system and of the Julian, from the ingress of Period i to the ingress of Period xxviii, is April 25 at midnight. At the ingress of Period xxviii, from the special reasons of the case, the epoch of origination of the Julian time of the system drops from April 25 at midnight to April 24 at midnight; and the proper style of every Julian term in the system, dependent upon it and deducible from it, drops in the same proportion: but the epoch of origination of the Natural time of the system, from the special reasons of the case also, continues attached to April 25 as before.

And to this general account of the Principles and the Administration of the Natural annual and the Julian annual time of the system of the Fasti Catholici, it is by all means desirable that we should add a like summary statement of the Principles and the Administration of the Equable annual time of the same system also.

i. The Equable annual time of the Fasti Temporis Catholici is carried on in two Types of Equable annual time in general; CYCLICAL equable and NABONASSARIAN equable. Of these, Cyclical equable is the Primary or Original Type of its kind; Nabonassarian equable is the Secondary or Derivative. The former is the standard of reference; the latter is referred to it perpetually.

ii. The Cyclical equable annual time of the system is the Noctidiurnal time of the system in periods of 365 Noctidiurnal cycles of the system perpetually; and consequently it is the Hebdomadal time of the system also in periods of 365 *feriæ* of the system perpetually. The epoch of the Cyclical equable time of the system is consequently that of the Noctidiurnal and of the Hebdomadal; and the decursus of the former, as part of the system, is that of the latter, as part of it also.

The Nabonassarian equable time of the system is the Noctidiurnal and the Hebdomadal time of the system also in 365 cycles of the former, or *feriæ*, of the latter, perpetually; but only as constantly equated to the Cyclical in the same respect.

iii. The style of the Cyclical equable time of the system is the same throughout; and the first day of the Cyclical equable year of the system in its proper style is Thoth 1 perpetually. The style of the Nabonassarian equable time of the system is the same with itself, and *mutatis mutandis* with that of the Cyclical, perpetually also.

iv. The Cyclical equable annual time of the system and the Nabonassarian equable annual proceed in the Period of 112 or 140 Cyclical or Nabonassarian equable years, along with the mean Natural annual and the mean Julian annual in the Period of 112 or 140 mean Natural or mean Julian years; and the epoch of origination of each of those forms of the equable time of the system is the first day of the first year of the first of those Periods: in the Cyclical equable style, Thoth 1, in the Nabonassarian, Mesore 10, corresponding to the first day of the first year of the first Natural, or first Julian, Period of the same kind, April 25.

v. The Nabonassarian equable time of the system descends on the Julian through each of these Periods at the rate of *one* day for every cycle of the Julian leap-year perpetually; the Cyclical equable descends on it at the same rate as the Nabonassarian in every cycle of leap-year of the Period except the last: when the Julian Type of the Period undergoes a change, and the *last* day of the preceding Period becomes the *first* of the next in order to it, yet under the name and style of the first of the preceding, notwithstanding.

vi. The Cyclical equable time of the system rises in terms of the Julian *one* number in the order of the Julian notation with every change of the Julian Type of the system; the Nabonassarian equable preserves the same relation to the nominal order of the terms in the same Julian notation perpetually.

vii. The Cyclical equable time of the system returns to the *feria* of origination at the beginning of every Period of 112 or 140 equable years; the Nabonassarian equable, down to the ingress of the xxxvth equable Type, as constantly equated to the Cyclical, returns to the *feria* next below the *feria* of origination.

viii. The original difference between the Cyclical equable and the Nabonassarian equable time of the system is the 26 terms which measure the interval in the equable style between Mesore 10 at midnight and Thoth 1 at midnight; and this difference becomes less by *unity* at the beginning of every equable Period after the first: and is reduced to nothing at the ingress of the xxviith equable Period, when Thoth 1 of Nab. and Thoth 1 Cyc. in one and the same year of the Æra Cyclica first become equal to each other.

ix. The proper relation of the Nabonassarian equable time of the system to the Cyclical equable is that of one cycle of 365 days and nights to another of 365 days and nights; i. e. *per se* of equality: but so, that the former being reckoned from the same nominal epoch in the equable style perpetually the latter must be reckoned from a variable one; or *vice versa*, the latter being reckoned from a fixed epoch in its proper style the former must be reckoned from a variable one. That is, the fixed Nabonassarian term being Mesore 10 perpetually, the variable Cyclical term is some one from Thoth 1 Cyclical to Mesore 10 Cyclical; a different one for each Period, from the 1st to the xxviith: the invariable Cyclical term being Thoth 1, the variable Nabonassarian one is some one from Mesore 10 to Thoth 1; a different one for each of the same Periods.

The Nabonassarian equable time of the system is consequently carried on in terms of the Cyclical at the ingress of Period i in the form of Mesore 10 = Thoth 1 Cyc.; and at the ingress of Period ii in that of Mesore 10 = Epagomenè 5 Cyc.: and so on, down to the ingress of Period xxvii; when it begins to appear in the form of Mesore 10 of Nab. = Mesore 10 Cyc. and therefore in that of Thoth 1 of Nab. = Thoth 1 Cyc. The Cyclical equable in like manner is carried on in terms of the Nabonassarian at the ingress of Period i in the form of Thoth 1 = Mesore 10 of Nab.; and at the ingress of Period ii in that of Thoth 1 = Mesore 11 of Nab.: and so on, down to the ingress of Period xxvii, when it begins to be carried on in the form of Thoth 1 Cyc. = Thoth 1 of Nab.

x. The Nabonassarian equable time of the system at the ingress of Period xxvii is fixed in the form of Thoth 1 of Nab. = Thoth 1 Cyc.; and it is carried on ever after in terms of the Cyclical accordingly: at the ingress of Period xxviii, in the form of Thoth 1 of Nab. = Epagomenè 5 Cyc.; at the ingress of Period xxix, in the form of Thoth 1 of Nab. = Epagomenè 4 Cyc.: and so on, down to the ingress of Period xxxv, when it begins to be carried on in the form of Thoth 1 of Nab. = Mesore 28 Cyclical.

The Cyclical equable time of the system in like manner, having been equated absolutely to the Nabonassarian at the ingress of Type xxvii, is carried on in terms of the Nabonassarian at the ingress of Period xxviii in the form of Thoth 1 Cyc. = Thoth 2 of Nab.; and at the ingress of Period xxix in that of Thoth 1 Cyc. = Thoth 3 of Nab.: and so on, down to the ingress of Period xxxv; when it begins to be carried on in the form of Thoth 1 Cyc. = Thoth 9 of Nabonassar.

xi. For each of the Periods between Period xxvii and Period xxxv, the Nabonassarian time of the proper Type of the Period is *fixed* for the remaining Periods down to the xxxvth; in the form of the same Nabonassarian term (the Nabonassarian date of the epoch of the Period) = to a variable Cyclical term, the Cyclical date of the epoch of the Period lowered by *unity* for successive Periods: the Nabonassarian time of Type xxvii throughout that Period in the form of Thoth 1 of Nab. = Thoth 1 Cyc.; though the xxviiith Period, in the form of Thoth 1 of Nab. = Epagomenè 5 Cyc.; and so on. Nabonassarian time of Type xxviii through that Period in the form of Thoth 2 of Nab. = Thoth 1 Cyc.; and through Period xxix in that of Thoth 2 of Nab. = Epagomenè 5 Cyc.: and so on. Nabonassarian time of the xxixth Type through that Period in the form of Thoth 3 of Nab. = Thoth 1 Cyc.; through Period xxx in that of Thoth 3 of Nab. = Epagomenè 5 Cyc.: and so on. Nabonassarian time of the xxxvth Type at the ingress of that Period in the form of Thoth 9 of Nab. = Thoth 1 Cyclical. And this Period being the date of the ingress of the xxxvth Julian Type of the system (the invariable Julian Type, the Type of the Julian time of the system which from the moment of its ingress continues ever after the same) the Nabonassarian time of the xxxvth Type becomes the proper Nabonassarian time of the system from this time forward perpetually. It is fixed at the ingress of this Type in the form of Thoth 9 of Nab. = Thoth 1 Cyclical: and that is its relation to the Cyclical ever after. There is no difference between them at the ingress of successive Julian Periods, after this xxxvth Type, beyond this difference of 8 terms; except what is purely accidental, and exists at the same time between the proper Julian time and the proper Gregorian time of the system respectively.

These explanations have run to a very considerable length; but we trust that their length will be excused by their importance. And though they relate to a former part of this Work, yet being founded on matters of fact, brought to light by the history of the Roman Calendar, they cannot in strictness be said to be irrelevant even to the proper subject of this second part. The questions which had to be discussed in the former part had peculiar difficulties to contend with; partly from the abstract and metaphysical nature of the subjects of discussion, partly from the novelty of the positions and principles which required to be laid down and maintained for the first time, and partly from the strength of old and inveterate prejudices to the contrary. And one reason for resuming the consideration of these topics here has been the hope that, by taking advantage of the additional light which subsequent investigation has thrown on the obscurities of such a subject, we might be spared the necessity of any similar explanations hereafter. For we cannot help flattering ourselves that we have now really cleared up every thing in the system peculiar to our Fasti, which required to be explained in order to its being understood. Henceforward, it cannot be the fault of the system itself if it is not easily comprehended by any one, who will give common attention to it; for to expect that it should ever be understood without *some* degree of attention, without *some* study *some* pains to master and understand it, would be absurd. There is no *regia via* to knowledge of any kind; much less to such knowledge as this. Chronology has its first principles, its fundamental truths; and no science has principles and axioms more abstract, more subtle and recondite, than those of chronology: of which there cannot be a stronger proof than the fact that though none has been more studied none has hitherto been less understood; that more books have perhaps been written on this one subject of chronology than on any other, yet all have been written in the same ignorance of the first principles of the science itself.

But this is an invidious topic, on which we have no inclination to dwell. We wish neither to disparage the labours of others, nor to contrast our own in the same way with theirs. We claim no merit for any thing done, or any thing discovered, in these Origines. It is our own firm persuasion, (and we desire to impress it as strongly on the conviction of others,) that every thing of this kind is Providential; and that, whatsoever the instrument by which it works, the true first cause of every useful discovery, and in particular of those which are most called for by the exigencies of times and seasons, and are not more calculated to redound to the glory of God than to the good of man, is the Divine Providence. It did not enter into the plan and order of this Providential control of things that discoveries such as these of our Origines should be made by the inquirers after them in former times; and no doubt because they were not wanted then, for other and more important uses and purposes: and if it makes part of the same Providential government and direction of the course of things that they should come to light in our time; we must presume it is because they are most wanted, and are calculated to be most useful, now. One thing at least is certain; that never since men began to name themselves by that holy and sacred Name, (the Only Name given under heaven whereby they can be saved,) was every thing, which they were bound to believe and respect as Christians, so generally called in question, so lightly esteemed, so irreverently and even so blasphemously treated, as in our own day. The Bible is dealt with in our time as if it never had been in any better a predicament than one of Mezentius' captives; a living body fast bound to a rotting carcase: a compound of human fables and divine truths; a fabulous system of facts, an inspired system of doctrines and precepts. In confutation and condemnation of such an irrational distinction as this, nothing is so directly to the point as the results of these researches of our Origines; and if it has pleased the Divine Providence to vouchsafe us this new and unlooked for testimony to the plenary inspiration of the Bible, just when it was most required, it is of very little importance through whose instrumentality it may have been brought to light. The final end of the discovery, and its critical adaptation to the time and season at which it is made, are too plain to be mistaken.

And this naturally leads us to observe that though the main end and design contemplated in the original conception of the idea of this present Work, and the strongest expectation which animated and sustained the author in the labour of its composition, was that of possibly reflecting new light on the simple historical truth of Scripture by an argument like this; another anticipation of its probable results, as strong and encouraging in its proportion, was the hope of rendering thereby the same kind of service to the cause of ancient history every where and in every form; the prospect held out by it of illustrating, authenticating, and confirming the accounts of the past, of which any thing is known from testimony, by a new species of evidence, never before adduced in their behalf. And among the reasons assigned for taking the Calendar of ancient Italy next in the order of consideration; we might have insisted on *this*: That between the two opposite systems, each of which professes to be the history of ancient Italy, yet one of which differs so widely from the other, that the agents and actions in one pass for nonentities in the other, nothing was so likely to interpose an unprejudiced and impartial, and yet a final and decisive, judgment as the Calendar of ancient Italy itself. It was easy to see that such questions as those of the real antiquity of the city of Rome, of the existence of Romulus, of Numa Pompilius, of Servius Tullius, and of the reality of the actions attributed to them; and what is more, such as those of the existence of still older persons, and of the reality of still more remote events, concerning which the utmost liberty of scepticism is avowed and entertained at present, must be involved in the investigation of such a subject as that of the history of the Calendar of ancient Rome and of still more ancient Italy. And as no subject could be more interesting to the classical associations of a learned University like that of Oxford, or more suitable to its proper studies and pursuits; none could be better timed, none could be better entitled to preference.

We have therefore investigated the History of this Calendar at every period, and through every state, of its existence with all possible care and diligence; and we have exhibited it in the Tables compiled for that purpose, and subjoined to the third and the fourth volume of this Work respectively, exactly as we have recovered it. The system of time, delineated and proposed as the result of these inquiries, being founded on principles and assumptions true in themselves and matters of fact perpetually, would be *possible* of its kind, even though it never had an *actual* existence as the *actual* calendar of any people of antiquity any where. But we have delineated it exactly as we have recovered it; and we have recovered and enucleated it all along not more from the laws and relatices of time in the abstract than from testimony, and the notices of antiquity which are still upon record concerning it. We are justified therefore in proposing it at last not as an abstract possibility, but as the actual civil Calendar of ancient Rome and of still more ancient Italy. In that capacity its proper test and criterion is the matter of fact: the proper proof of its reality is that of its use and application perpetually. Where then do we find this proof? Where, but in the *old* accounts? in the times the actions and the events which are the subjects of the old accounts: and the more complete and circumstantial those accounts, the more complete and decisive is the proof of the use of this Calendar perpetually thereby furnished.

In a case of this kind, every one must see that the confirmation will be reciprocal; a real history will be authenticated by its proper calendar, and a real calendar will be attested by its proper history. A false Roman Calendar (i. e. a calendar falsely calling itself Roman) would not be perpetually attested by a true Roman History; nor *vice versa* a true Roman Calendar be affirmed at all times by a false Roman History: but the true Roman Calendar must be confirmed by the true Roman History; and the true Roman History must be substantiated by the true Roman Calendar. The Calendar which we have proposed is the same with itself from first to last; and yet it is confirmed by the earliest accounts as much as by the latest: it cannot therefore be the actual Calendar of later Rome, and not that of earlier Rome also. And, if it is the actual Calendar of both; then the earlier Roman History on the whole in its proper order of time must be as true and as much entitled to belief as the later.

It remains only to acknowledge the obligation under which this Work has again been laid by the Delegates of the University Press; and to tender our grateful thanks to the members of their Board, both individually and collectively, for this as for all their former favours.

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ORIGINES KALENDARIÆ ITALICÆ.

ON THE CALENDARS OF ANCIENT ITALY.

DISSERTATION I.

On the date of the Foundation of Rome.

CHAPTER I.

SECTION I.—*Connection of the epoch of the Foundation of the city of Rome with that of the Roman Calendar.*

THE inquiries which we are proposing to institute into the calendars of ancient Italy in general are intended to be introductory to the history of the Roman calendar in particular, from which the Julian calendar, in use at the present day, is ultimately derived. And with respect to the Roman calendar, that part of our subject, it is evident, is closely connected with the question of the foundation of the city of Rome. It may reasonably be supposed that the origin of civil time among the Romans and the origin of the Romans themselves must have been simultaneous; and that neither could have been older or later than the origin of the city of Rome itself. The date therefore of the Roman calendar, properly so called, must be that of the foundation of Rome; and were either of these things known the other in all probability would be known also. We propose to consider both these questions; but each in its turn, and each as distinct from and independent of the other: in which case, if they are found to terminate in one and the same result, the conclusion will be so much the more satisfactory. And for this purpose it appears to be the most natural order of proceeding that we should begin with the question of the epoch of the foundation.

It is necessary however to premise that by the foundation of Rome we understand nothing to be meant but the foundation of the city of Rome in the ordinary acceptation of each of those terms. We know nothing, for the purpose of our present argument, of any city of antiquity, called by the name of Rome, distinct from this; or of any past event, such as must be implied by the foundation of Rome, earlier or later than this. The ancients have spoken of a Rome older than Rome itself; and of such an event as the foundation of Rome anterior to the Foundation: with respect to either of which we do not feel it incumbent upon us, for the sake of our proper object, to express any opinion of our own.* It is agreed that the civil calendar peculiar to Rome came into being, if at all, along with the Rome of Romulus. It is agreed too that there was never a younger Rome than the Rome of Romulus, even though there might have been an older one; nor any event, which could be understood by the foundation of Rome, later than the foundation of Rome by Romulus. It is into the date of *this* event that we propose to inquire, by way of preliminary to our proper undertaking, the investigation of the ancient Italic calendar in general, and that of the Roman calendar in particular.

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* It appears indeed from Dionysius of Halicarnassus[1] that not by Greek writers only but even by Roman an idea had been conceived of a double and even a triple foundation of Rome; once before the Trojan war, again, in the second generation after it, and a third time, fifteen or sixteen generations after the war of Troy.

The origin of such an idea as that of a foundation older than the Trojan war scarcely admits of explanation on any probable or consistent principle. The idea of a foundation in the second generation after the war might be explained by supposing the foundation of Alba Longa to have been confounded with that of Rome; for Ascanius the founder of Alba stood in the second generation relatively to those who fought at Troy. The foundation in the fifteenth generation must be that of Romulus, who stood in the fifteenth generation from Ascanius: the fifteen reigns from Ascanius inclusive to Numitor and Amulius being equivalent to generations[2].

The various opinions of the Greeks in particular concerning the origin of the city of Rome and of the Roman people are enumerated at great length by Dionysius[3].

Both Servius and Philargyrius ad Virg. Eclog. i. 20. appeal to the

[1] i. 9. 45. 72, 73: ii. 2.

[2] Cf. Dionys. Hal. i. 70, 71: Dio, Fragm. iii. 3–5: Livy, i. 4: Euseb. Chron. Arm. Lat. i. 359–392: ii. 137–175: Syncellus, 361. 16.

[3] Locis citatis. Cf. Euseb. Chron. Arm. Lat. i. 359 sqq. Syncellus, 361. 16—364. 18. Festus, xvi. 453. 20–457. 5. Roma: 458. 3–8: Fragmenta, 38, 39. Plutarch, Romulus, i. ii: De Mulierum virtutibus, Troades: Quæstiones Romanæ, vi. Solinus, i. §. 1–3. Servius, ad Æn. i. 273: vi. 773: vii. 678. Auctor De Origine urbis Romæ.

SECTION II.—*On the day of the Foundation as distinct from the year; and on the uniformity of testimony to the former though not to the latter.*

Now this inquiry into the date of the foundation in general resolves itself into two distinct questions; that of the DAY and that of the YEAR of the foundation respectively. Nor is there any necessary connection between them; none such at least but that the matter of fact on one of those points might always have been handed down, and always have been known, without including the other. The state of the

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Luperci or Lupercalia of Marinus, to prove *this* point, viz. that there must have been a *Roma ante Romulum;* from which Romulus derived his name: but they have both mistaken the name of a goddess for the name of the city. *Sed dea flava et candida Roma Æsculapii filia novum nomen Latio fecit.* Roma the daughter of Æsculapius is simply Strength the daughter of Health. *Hanc conditricis nomine omnes Romam vocant.—Quod conditricis nomine ab ipso omnes Romam vocant*: as if this Roma was the founder of Rome.

Strabo has shown his usual good sense and judgment, by noticing none of these apocryphal accounts of the origin of Rome in contradistinction to the commonly received one, except that, which tradition had handed down, of the settlement of a colony of Greeks (Arcadians under Evander) on the same site in general as that of the Roma of Romulus, but at a much earlier period; viz. about the time of the Trojan war, or that of the Hercules of the Greeks[4]. For this tradition there does seem to have been good foundation. It is substantiated and confirmed not only by a general persuasion and belief to that effect among the best informed of the Greeks and Romans, but by various institutions both religious and civil, and by the names of places, from the earliest times, which were ultimately to be traced up to it[5]. We shall probably produce one confirmation of its truth ourselves, as we proceed with our inquiries into the Roman calendar.

v. iii.

[5] Cf. Dionys. Hal. i. 31–33. De Evandro : i. 80 : cf. ii. 30, 31.

case is agreeable to this distinction. On one of these points testimony is uniformly to the same effect; on the other the greatest diversity of statement is found to prevail. On one of these points consequently it would seem that there is *a priori* no room for doubt; on the other there is at first sight much uncertainty and much perplexity, the ultimate cause of which is nothing but the difference of opinions and statements concerning it which are found upon record.

The day of the foundation has always been handed down the same *in terms*; either as the PALILIA or PARILIA, the feast-day of Pales in the Roman calendar, or as the xi Kalendas Maias in the Roman notation of the days of the month[a]: and both these modes of designating it have always implied the same thing; the xi Kal. Maias, in the Roman style, and the Palilia or feast-day of Pales having always denoted the same day. As a various reading indeed the x Kal. Maias may occur instead of the xi Kal. Maias; but such differences must be treated as accidental. The only important distinction of this kind is one which occurs in Zonaras[b], where the xi Kal. Maias in the Roman style is explained by April 20 Julian, not by April 21; for that was a distinction in its meaning before and after the Julian Correction respectively which required to be made. In the Julian calendar[c] the feast-day of Pales, or the Natalis Urbis Romæ, always stood opposite to the xi Kal. Maias. The Fasti Consulares, Triumphales, et Censorii adopt this day as the epoch of the entire series of official years, which they bring down from the Foundation to the end of the reign of Augustus. Whatsoever the actual commencement of the official year at a particular time might be, it is the rule of these Fasti to treat it as if it bore date perpetually from the proper epoch of the years of the city, the Natalis Urbis itself, considered as this one day from first to last, the xi Kalendas Maias.

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[a] Varro, De Re Rustica, ii. cap. i. § 9. p. 240. l. 14. Cicero, De Divinatione, ii. 47, 98. Ovid, Metam. xiv. 774. Festus, xiv. 325. l. 1. Parilibus. Dionys. Hal. i. 88. Vell. Pat. i. 7. Plutarch, Romulus, xii: Numa, iii. Suetonius, Caius, xvi. 13. Dio Cass. xliii. 42. Solinus, i. § 18. Censorinus, De Die Natali, xxi. Servius, ad Georg. iii. 1. Eutropius, i. 1. Lydus, De Mensibus, i. 14. p. 7: iv. 50. 85. l. 3. &c.

[b] vii. 3. 316. B.

[c] Fasti Verrii Flacci, apud Foggini, in mense Aprili. Ovid, Fasti, iv. 721–806: 806–862. Pliny, H. N. xviii. 66. p. 214.

It must therefore be inferred from these facts, that one day in particular had always been handed down as the traditionary date of the Foundation, viz. the xi Kalendas Maias in terms of the Roman calendar; and consequently that this one day was always supposed to have been the actual day of that event: and it seems only a just and reasonable enlargement of the conclusion so obtained, to assume that this one day must truly have been the day of the event. We may argue at least from this concurrence of traditional testimony and of common belief to one and the same effect, that the actual day of the event must have been either the feast-day of Pales in the Roman calendar or the xi Kal. Maias in the Roman style, or both. And though the question to what day in the Julian calendar either the feast-day of Pales or the xi Kal. Maias corresponded at the time of the event would still require a distinct answer; it would be premature to enter upon it at present. All that we shall say in reference to it is That tradition has handed down the feast of Pales also among the Romans as attached from the first to the spring of the year; and that the xi Kal. Maias in the Roman style has always been understood to denote some day in the spring of the year too. The Julian date therefore, which corresponded either to that or to the Palilia in the year of the foundation, must have been some day in the spring.

It follows however from this uniformity of representation and of belief, with respect to the day of the event and to the time of the year at which it happened, that all the extant dates of the Foundation must be understood to be referred to the Palilia, and through that to the same calendar day of the month, the xi Kal. Maias, and to the same season of the year, the spring. The authors of these various dates indeed do not appear to have been always aware of that distinction, or to have always kept it in mind. Censorinus however has shown his usual exactness in this respect also[d]; and we shall follow his example, and shall consider every date of the foundation, which is any where on record, whether so referred by its proper author or not, to be referrible to the Palilia, and consequently to the spring of the natural year, and to the month of April or of May.

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[d] De Die, xxi.

SECTION III.—*On the year of the Foundation, and on the difference of testimony to that point.*

The uniformity of testimony to the day of the Foundation, as we have already observed, is singularly contrasted with the opposition and conflict of statements respecting the year; though it might be supposed *a priori* that the year was more likely to have been perpetuated than the day. Roman antiquity is agreed about the latter; and Roman tradition speaks to the same effect concerning it in every form and shape. The epoch of the Foundation, as concerns the day, may be considered to rest on an universal belief, to which there is no exception. We have nothing to do in this instance but to ascertain the traditional date, and then to accept it. But the case is different with respect to the year. The number of dates of the Foundation in terms of the year, which are to be met with, must be decisive that there was no clear nor invariable tradition on that point, as there was on the other; and that the year of the Foundation was a problem which each of our authorities had to solve more or less for himself. And though it necessarily tends to perplex this particular question at the present day, that we find such a multiplicity of opinions and statements about it among the ancients, yet these very differences are proofs that one of our authorities did not borrow from another; that each inquired for himself: and that consequently, in the different conclusions to which they appear to have come, we have at least the sum and substance of so many independent judgments; which should give each in particular so much the stronger a claim to consideration and respect. And it is *prima facie* an argument of the truth of their conclusions in general that, independently obtained as they were, and differing from one another as they do, the difference itself is confined to very narrow limits. Extreme statements, among authors of all kinds, and whether treating professedly of Roman history or not, may vary from one another by 86 years; but extreme statements among our Roman authorities, and especially among the Roman historians, differ at the utmost only by 30: while, among the best authors of this description, the earliest and the latest dates of the Foundation vary only from one to two or three, or at the utmost four, years asunder. It is an obvious presumption, from this state of the case, that all these must have approached more or less nearly to the truth; and that the true date will probably be found to differ as little from any one of them as that in particular does from the rest.

We shall begin therefore with stating all the dates of the foundation, which we have met with, in their proper chronological order relatively to one another; and we shall then proceed to offer such remarks upon each as may occur. And though this list will comprehend a considerable number, we do not propose it as a complete collection of its kind; only as including the most important and the best authenticated.

Dates of the foundation of the city of Rome, chronologically arranged.

i.	38 years before ..	Ol. i. 1.	B. C. 814	ex Palilibus.
ii.	.. .. ..	.. v. 2.	.. 758	..
iii.	.. .. ..	.. vi. 3.	.. 753	..
iv.	.. .. ..	.. vi. 4.	.. 752	..
v.	432 years post Troj. C.	Ol. vii. 1.	.. 751	..
vi.	.. .. ..	.. vii. 2.	.. 750	..
vii.	.. .. ..	.. vii. 3.	.. 749	..
viii.	.. .. ..	.. vii. 4.	.. 748	..
ix.	.. .. ..	.. viii. 1.	.. 747	..
x.	.. .. ..	.. viii. 2.	.. 746	..
xi.	.. .. ..	.. ix. 4.	.. 740	..
xii.	.. .. ..	.. xii. 4.	.. 728	..

It is an observable circumstance of these dates that they are proposed as referrible to a prior epoch; either that of the capture of Troy or that of the first Olympiad. They presuppose consequently the fixation of each of these for the purpose of such references; especially that of the first Olympiad: and therefore we must do the same in our contemplated review of such dates. The historical date of the first Olympiad, which all the above references recognise, is B. C. 776; and that of *Troja capta*, implicitly recognised also, is B. C. 1183, Eratosthenes' date of that event. Nor is there any reason why each of these dates should not be supposed to have been already settled, and already received among chronologers, when the greater part of the above dates of the Foundation were first proposed.

We shall now proceed to consider each of these dates in its turn. The first thing to be done is to assign them to their respective authors; and to fix upon the proper name by which each is to be discriminated from the rest.

SECTION IV.—*Of the authors of the above dates; and of the names by which they are to be distinguished asunder.*

i. B. C. 814 ex Palilibus: 38 years before Ol. i. 1. It appears from Dionysius of Halicarnassus[e] that a date of the foundation, of this particular description, was proposed by Timæus; which Eusebius and Syncellus[f] show to be rightly understood of B. C. 814 ex Palilibus, 38 years complete, not 37, before B. C. 776. The same date appears in Cicero's treatise De Republica[g], great part of which has been lately recovered. And though the name of Timæus in conjunction with it is not found in his text also, there can be no doubt that he must have intended by this date, (whether that of the foundation of Rome, or that of the foundation of Carthage, or that of both at once,) the same which Dionysius ascribes to Timæus[h]. To this date therefore of B. C. 814 ex Palilibus, we may give the name of the date of Timæus.

xii. Ol. xii. 4. B. C. 728 ex Palilibus. It appears also from Dionysius[i], confirmed by Solinus[k], and by Syncellus[l], that this was the date of Lucius Cincius: Περὶ τὸ τέταρτον ἔτος τῆς δωδεκάτης Ὀλυμπιάδος. To this therefore we must give the name of the Cincian date; the date of Cincius.

xi. Ol. ix. 4. B. C. 740 ex Palilibus. This date may be collected from Ausonius. Ausonius at least twice characterises the year of his own consulship, A. D. 379 ex Kalendis Januariis, in terms of the æra of the Foundation, as follows:

i. Epigrammata, iv. ii. 148. *Supputatio ab Urbe condita in Consulatum nostrum*[m].

Annis undecies centum conjunge quaternos, =1104
Undecies unamque super trieterida necte: 11 + 3 = 14
Hæc erit æternæ series ab origine Romæ. 1118

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[e] Ant. Rom. i. 74.

[f] Eusebius, Chron. Arm. Lat. i. 383. Syncellus, 365. 1.

[g] ii. 70. Heinrichii, Bonnæ ad Rhenum, 1828.

[h] Cf. De Rep. i. 38, 39: 58.

[i] i. 74. Cf. Eusebius, Chron. Arm. Lat. i. 383.

[k] i. § 27.

[l] 365. 2.

[m] Cf. Edyllia, viii. 332: ix. 333.

ii. Ibid. iii. 149. *De eodem ad Proculum.*

Urbis ab æternæ deductam rege Quirino
Annorum seriem cum Procule accipies:
Mille annos centumque et bis fluxisse novenos (1118)
Consulis Ausonii nomen adusque leges.
Fors erit ut lustrum cum se cumulaverit istis
Confectam Proculus signet Olympiadem.

It is implied in both these calculations that A. D. 379 ex Kal. Januariis and U. C. 1119 in the æra of the city were the same. Now in the Varronian reckoning of this æra A. D. 379 ex Kal. Jan. corresponded to U. C. 1132; and that being 13 years higher in terms of the æra than U. C. 1119, it follows that Varro's epoch of the æra was 13 years higher than Ausonius'. Consequently if the former was B. C. 753 ex Palilibus, the latter must have been B. C. 740 ex Palilibus. To this date then we may give the name of the Ausonian.

x. Ol. viii. 2. B. C. 746 ex Palilibus. Lydus, De Mensibus[n]; Ῥωμύλος δὲ κτίζει τὴν Ῥώμην τῇ πρὸ δεκαμιᾶς καλανδῶν Μαΐων......κατὰ τὸ δεύτερον (ἔτος) τῆς ὀγδόης (Ὀλυμπιάδος): and this dated ex Palilibus must denote B.C. 746. We have met with this date in no other author; unless it should be supposed to be recognised in some manner or other by the Chronicon Paschale, (as we shall see by and by,) and by Syncellus[o]. Though therefore Lydus proposes it along with the Varronian, Ol. vi. 3, as a date which had been assigned by others (not specified) in contradistinction to the Varronian, we must call it the date of Lydus himself.

ix. Ol. viii. 1. B. C. 747 ex Palilibus. It appears from Eusebius and Syncellus[p] that this was the date of Quintus Fabius (Pictor). Solinus implies the same thing[q]. We give it therefore the name of the date of Fabius Pictor.

viii. Ol. vii. 4. B. C. 748 ex Palilibus. This date appears in the Chronicon Paschale[r]; and in Syncellus[s]. Other dates also appear in the Chronicon, at least by implication. It dates the birth of Romulus and Remus Ol. ii. 3. B. C. 770—769[t], and the Foundation in the 24th year of their age[r];

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[n] i. 14. p. 7. l. 12.

[o] 361. 10–15: 367. 9–13.

[p] Eusebius, Chron. Arm. Lat. i. 383: Syncellus, 365. 1–8: cf. 361. 10–15: 367. 9–13.

[q] i. § 27.

[r] 204. 2.

[s] 361. 10: 367. 9, 10.

[t] 195. 15.

i. e. B.C. 747 or 746 ex Palilibus. A. D. 331 is supposed to be=U. C. 1081[u]: and consequently B. C. 750=U. C. 1. ex Palilibus. Still we may call this date that of the Chronicon Paschale. It is confirmed by the date of the death of Romulus, Ol. 17. 2.; B. C. 710, and by the length of his reign, 38 years[w]. The first year of Romulus was the first of the city also: and if his last year was B. C. 710. U. C. 39, his first or U. C. 1 must have been B. C. 748.

vii. Ol. vii. 3. B. C. 749 ex Palilibus. The date of a solar eclipse is found to be recorded in Cicero's book De Republica, which we have already referred to; Nonis Juniis, U. C. trecentesimo et quinquagesimo fere[x]: i. e. June 5 Roman U. C. 350. The Julian date of this eclipse was June 21. B. C. 400; from which coincidence we deduce U. C. 1 in this reckoning of the æra=B. C. 749. Now the fact of this eclipse under its proper Roman date was specified in the Annales Maximi. We must therefore give this particular date the name of that of the Annales Maximi.

vi. Ol. vii. 2. B. C. 750 ex Palilibus. It appears from Dionysius[y] that this was Polybius' date; Τὸ δεύτερον ἔτος τῆς ἑβδόμης Ὀλυμπιάδος: and this may be inferred from Cicero De Republica also[z]: Nam si, id quod Græcorum investigatur annalibus, Roma condita est secundo anno Olympiadis septimæ: compared with another passage[a], in which Scipio, (the speaker in both these instances,) declares expressly that he took his chronology from Polybius: Sequimur enim potissimum Polybium nostrum. For this reason we must call this date κατ' ἐξοχὴν that of Polybius.

v. 432 years post Trojam Captam: Ol. vii. 1. B. C. 751 ex Palilibus. It appears from Dionysius of Halicarnassus that this was the date of Porcius Cato, Cato the elder or Cato the censor[b]: Κάτων δὲ Πόρκιος Ἑλληνικὸν μὲν οὐχ ὁρίζει χρόνον· ἐπιμελὴς δὲ γενόμενος εἰ καί τις ἄλλος εἰς τὴν συναγωγὴν τῆς ἀρχαιολογουμένης ἱστορίας ἔτεσιν ἀποφαίνει δυσὶ καὶ τριάκοντα καὶ τετρακοσίοις ὑστεροῦσαν τῶν Ἰλιακῶν. To which he subjoins, as an inference of his own: Ὁ δὲ χρόνος οὗτος, ἀναμετρηθεὶς ταῖς Ἐρατοσθένους χρονογραφίαις, κατὰ τὸ πρῶτον ἔτος πίπτει τῆς ἑβδόμης Ὀλυμπιάδος. Again[c]: Δευτέρῳ δὲ καὶ τριακοστῷ καὶ τετρακοσιοστῷ μετὰ τὴν Ἰλίου ἅλωσιν ... κτίζουσι Ῥώμην, ἔτους ἐνεστῶτος πρώτου τῆς ἑβδόμης Ὀλυμπιάδος, ἣν ἐνίκα στάδιον Δαϊκλῆς Μεσσήνιος, ἄρχοντος Ἀθήνῃσι Χαρόπου ἔτος τῆς δεκαετίας πρῶτον. And again[d]: Ἐτειχίσθη μὲν οὖν ἡ πόλις ... ἐνιαυτῷ δευτέρῳ καὶ τριακοστῷ καὶ τετρακοσιοστῷ μετὰ Ἰλίου ἅλωσιν, ἐπὶ τῆς ἑβδόμης Ὀλυμπιάδος.

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[u] 529. 11—530. 17.

[w] 217. 12.

[x] i. 19.

[y] i. 74: cf. Polybius, Fragm. v. cxi. 10: vi. ii.

[z] ii. 58.

[a] ii. 63.

[b] i. 74: cf. 75: also Eusebius, Chron. Arm. Lat. i. 383, 384: Syncellus, 365. 4—8.

It is clear from these statements that, though it does not appear whether Cato expressly declared what was his own meaning in this respect or not, yet Dionysius understood him to refer his date of the foundation to Eratosthenes' of the capture of Troy; and that being the summer solstice, or sometime in the summer, B.C. 1183, the 432d year, dated from that epoch, yet ex Palilibus also, must have been B. C. 751. And this is Dionysius' own date; as may be collected from his chronology of the intermediate period, by which this interval of 432 years is made out exactly between the capture of Troy and the foundation of Rome[e]. We may therefore call this date of B. C. 751 ex Palilibus that of Cato or that of Dionysius indifferently; though in reality the original author of it must have been Cato.

iv. Ol. vi. 4. B. C. 752 ex Palilibus. The dates of the Fasti Capitolini being compared with the Varronian are seen to range invariably one year lower. Consequently the common epoch from which they are all reckoned must have been one year lower than the Varronian; and if this latter is B. C. 753 ex Palilibus, the former must have been B. C. 752 ex Palilibus. To this date therefore we give the name of the Capitoline.

iii. Ol. vi. 3. B. C. 753 ex Palilibus. It is well known that this is the Varronian date of the foundation; and probably the first author of it was Marcus Terentius Varro, though we find it ascribed to others, who were his contemporaries, as Pomponius Atticus and even Cicero[f]: as if they too had determined it for themselves, and had not merely adopted it after Varro.

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[c] i. 71.

[d] ii. 2.

[e] i. 45—59: 63—65: 70, 71: cf. Eusebius, Chron. Arm. Lat. i. 383, 384: Syncellus, 365. 4—7.

[f] Solinus, i. § 27.

ii. Ol. v. 2. B. C. 758 ex Palilibus. We collect the existence of such a date as this chiefly if not solely from a fragment of some Roman history which occurs in Suidas[g]: Δεκαπέντε πρὸς τοῖς τριακοσίοις ἐτῶν ἀπὸ τοῦ πρώτου συνοικισμοῦ τοῦ ἄστεος διαγεγονότων χιλίαρχοι τὴν ἀρχὴν Ῥωμαίων παρειλήφασι. The Varronian date of the first appointment of military tribunes, which this statement dates U. C. 315, was U. C. 310. The epoch therefore to which it was referred must have been five years earlier than the Varronian; B. C. 758 ex Palilibus, instead of B. C. 753 ex Palilibus. If this date then is to rest on the authority of Suidas alone, in whom only we find it, we must call it the date of Suidas. But there can be no doubt that he quoted it from some ancient author; nor can we help strongly suspecting that it is ultimately to be traced up to one of the oldest of the Roman historians, Lucius Calpurnius Piso, surnamed Frugi and also Censorius.

Censorinus has quoted a fragment of Piso's in his own work De Die Natali[h]; Sed nostri majores, quod naturale sæculum quantum esset exploratum non habebant, civile ad certum annorum modulum centum statuerunt, (ut) testis est Piso; in cujus annali septimo scriptum est sic: "Roma condita anno DXCVI sæculum accipit his consulibus quîs proximi sunt consules M. Æmilius M. F. Lepidus C. Popilius ii (Absens corrige) Lænas[i]."

Now these latter were consuls U. C. 596 of Varro B. C. 158. If so U. C. 597 of Piso at this time corresponded to U. C. 596 of Varro: i. e. his reckoning of the æra of the city through successive consular years was ranging B. C. 158 one number higher than Varro's.

With this fact then relative to the proportion of one to the other, B. C. 158, let us compare what may also be collected of their relation at a much earlier period, B. C. 308—305. Speaking of B. C. 305 U. C. 449 of Varro, Livy observes[k]: Creati consules L. Postumius T. Minucius. hos consules Piso Q. Fabio et P. Decio (the representatives of U. C. 446 of Varro B. C. 308) subgerit, biennio exemto, quo Claudium Volumniumque (U. C. 447 B. C. 307) et Cornelium cum Martio (U. C. 448 B. C. 306) consules factos tradidimus.

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[g] Χιλίαρχος.
[h] xvii. 95, 96.
[i] Cf. Pliny H. N. xxxiv. 14.
p. 223.
[k] ix. 44.

memoriane fugerit in annalibus digerendis, an consulto binos consules, falsos ratus, transcenderit, incertum est. Of the reasons of this omission neither can we, at this distance of time, pretend to give any account; but we may infer from the fact itself that if the consular years of Piso, even after this omission, were ranging B. C. 158 one number higher than those of Varro, before this omission they must have been ranging three numbers higher: so that, though every thing from the foundation down to this epoch of B. C. 308 had been reckoned alike by each, yet Piso's date of the foundation itself must have been three years at least higher than Varro's.

But the truth is that, between the first consular year and U. C. 446 B. C. 308, two pairs of consuls have been improperly introduced into the consular Fasti adapted to the epoch of Varro, and require to be struck out; as we hope to shew more at large hereafter: and both these interpolations are older than U. C. 446 of Varro, B. C. 308. Now it would be gratuitous to assume that Piso too gave these consuls any place in his list. But if he did not, then the difference between the consular Fasti of Varro and his, which was three years even after these interpolations, must have been five years before them. Consequently Varro's epoch of the foundation being B. C. 753 ex Palilibus, Piso's must have been B. C. 758 ex Palilibus.

Now if Piso's date of the foundation was actually B. C. 758, (i. e. if U. C. 1 of his reckoning corresponded to B. C. 758,) then U. C. 600 would correspond to B. C. 159, and U. C. 601 to B. C. 158: that is, according to his computation of the years of the city, B. C. 159 would be truly a secular year, as he assumed it to have been. And this coincidence, it appears to us, must do much to prove that Piso's epoch was really B. C. 758; especially as there is no proof extant, nor any reason whatsoever to believe, that this year B. C. 159 was after all secular *de facto*, or recognised and attested in that capacity by any such ceremony as the secular games. It was secular only in the scheme and reckoning of Piso; and therefore it must have stood at the distance of a certain number of centuries complete from *his* epoch of the foundation, whatsoever that was: as B. C. 159 would do from B. C. 758. And though he called it U. C. 596 not U. C. 600, it should be remembered that he had omitted two years, B. C. 307 and B. C. 306, which would otherwise have made it U. C. 598; and he might have other omissions which would account for two years more.

Moreover, since it appears to have been generally taken for granted by these old Roman historians that Romulus founded the city when he was 17, or 18, or 19 years of age; if Piso dated the foundation B. C. 758 it is very probable that he dated the birth of Romulus B. C. 776. Now we collect from Cyrill Contra Julianum[l] that this date for the birth of Romulus must have been somewhere on record; for he there proposes it himself. And though many other of the particulars of this chronological summary of his were taken from Eusebius, this date could not have been so taken, because it does not occur in Eusebius, but on the contrary Ol. ii. 1. B. C. 771, or Ol. ii. 4. B. C. 768[m]; either of them much more consistent with Eusebius' date of the foundation in the 18th year of the age of Romulus[n], B. C. 751, than B. C. 776 would have been. It is most probable therefore that this particular date was ultimately derived from Piso.

CHAPTER II.

On the degree of authority due to each of the above dates.

SECTION I.—i. *Date of Timæus.* ii. *Date of Cincius : Date of Ausonius.* iii. *Date of Lydus : Date of the Chronicon Paschale : Date of Fabius Pictor.* iv. *Date of Piso.*

i. Date of Timæus. The antiquity of Timæus, in comparison of that even of the oldest among the Roman historians, would seem to entitle his testimony on this question of the date of the Foundation to considerable deference and respect. It appears too that chronology was a point to which he paid particular attention; and on which he professed to aim at more than ordinary exactness. The reckoning of time by the Olympic æra was first introduced by him. But the recommendation of antiquity in his instance is counterbalanced by the fact of his living and writing at a distance from Rome, and even from Italy, and of his making use in all probability of hearsay accounts; of accounts at least not derived from original Roman sources: and certainly of his writing at a time when there was yet little or no intercourse between Rome and Greece, or even between Rome and Magna Græcia or Sicily. Aristotle and Theophrastus might have heard something of Rome*; and might have left something on record concerning it, before Timæus: but the utmost amount of *their* knowledge of Roman history must have been still extremely deficient; and it is morally certain that neither of them could have furnished Timæus with the data necessary to come to a correct conclusion on such a question as this of the date of the foundation of Rome.

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[l] i. 12. B.

[m] Chronicon Arm. Lat. i. 283 : ii. 173.

[n] Cf. Thes. Temporum, Ol. i. 4 : vii. 1.

As it is, this date of Timæus appears to have been proposed conjecturally. Dionysius at least was not aware on what grounds it rested, or by what process of reasoning it had been obtained: *Τίμαιος μὲν ὁ Σικελιώτης, οὐκ οἶδ' ὅτῳ κανόνι χρησάμενος, ἅμα Καρχηδόνι κτιζομένῃ γενέσθαι φησὶν (τὴν τῆς Ῥώμης κτίσιν), ὀγδόῳ καὶ τριακοστῷ πρότερον ἔτει τῆς πρώτης Ὀλυμπιάδος*[o]. It seems then that he simply enunciated his date of the foundation of Rome along with another, that of the foundation of Carthage; from which we may conclude that he thought both these cities must have come into being at once: an inference which may be collected also from the passage of Cicero De Republica, quoted supra[p]. His opinion then concerning the foundation of Rome was influenced by another which he had also formed respecting that of Carthage; the most probable explanation of which is the equality of these two cities, as it appeared to him, in wealth and strength: from which he concluded that they must have been of equal growth and standing, and one of them as old as the other. The same idea very probably gave occasion to Apio's date of the foundation of Carthage[q], Olymp. vii. 1. B. C. 751: which as we have seen was in reality the Catonian date of the foundation of Rome. Yet this date of Timæus is almost as much in defect of the truth for the foundation of Carthage as it is in excess for that of Rome. The true date of the foundation of Carthage was B. C. 867[r], 53 years earlier than B. C. 814. The true date of that of Rome was B. C. 750, 64 years later than B. C. 814*.

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* Pliny, H. N. iii. 9. 592. (in allusion to the date of Theophrastus' Historia Plantarum, U. C. 440 B. C. 314): Theophrastus, qui primus externorum aliqua de Romanis diligenter scripsit—(nam Theopompus, ante quem nemo mentionem habuit, urbem dumtaxat a Gallis captam dixit. Clitarchus ab eo proximus legationem tantum ad Alexandrum missam). Cf. xiii. 30. p. 758: also xv. 1: and Dionysius Hal. i. 6: according to whom Hieronymus of Cardia was the first of the Greek historians who gave any summary of Roman history. He was contemporary with the Diadochi. The next to him was Timæus.

[o] i. 74.

[p] Page 10.

* Timæus was the son of Andromachus, king (τύραννος) of Tauromenium in Sicily; where Timæus too was born. Andromachus was a contemporary of Timoleon's; and cooperated zealously with him in the liberation of Syracuse from the tyranny of Dionysius the younger. Tauromenium was the place where Timoleon landed on his expedition[1]. The Res gestæ of Timoleon were written by Timæus himself[2]. It appears from Diodorus Siculus[3] that Timæus was banished by Agathocles (cir. B. C. 316); upon which he retired to Athens, and ever after seems to have lived at Athens[4]. His historical works were written at Athens.

Of the attention which he is said to have paid to chronological exactness, see Polybius, xii. 12. (cf. Suidas, Τίμαιος) Diodor. Sic. v. 1. His general history left off just before Ol. 129. 1. B. C. 264, the beginning of the second Punic war[5]: and Cicero and Dionysius tell us[6] that he made the war of Pyrrhus and the Romans, B. C. 284–280, the subject of a distinct work. But he treated of early Roman history in his general history also[6]; and A. Gellius probably means this latter where he alludes to Timæus' *Roman History;* Timæus in historiis quas oratione Græca de rebus Populi Romani composuit[7].

It does not appear that Timæus' date of the foundation was ever adopted *ex professo* by any Roman historian; yet there is some reason to conclude that Ennius' opinion of the age of the city in his own time must have been founded upon it, and that even Virgil, so much more judicious a writer than Ennius, and probably so much better informed on all such points as these, might have found it convenient to adopt it in his Æneid.

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[q] Josephus contra Apion. ii. 2.

[r] Fasti Catholici, iv. 256. Diss. xvii. ch. iii. sect. vi.

[1] Plutarch, Timoleon, x. xi.

[2] Cicero, ad Fam. v. 12: cf. Plut. Tim. xxxvi: Polybius, xii. cap. 23.

[3] xxi.

[4] Plutarch, De Exsilio, xiv. Cf. Polybius, Excerpta Vatican. Lib. xli. cap. 13. 18: xii. cap. 28. § 6. He lived 50 years and upwards at Athens, and died at 96. Lucian, Macrobii, cap. 22.

[5] Polybius, i. 5: iii. 32. § 2.

[6] Ad Fam. v. 12. Dionysius Hal. i. 6.

[7] xi. 1. Cf. Pliny, H. N. xxxiii. 13. p. 55.

ii. Date of Cincius. Lucius Cincius Alimentus, (so Livy expresses his name in full[s],) was a contemporary of Hannibal's;

Ennius was born at Rudiæ, a small town in Calabria, not far from Brundusium[8].

Nos sumu' Romani qui fuimus ante Rudini[9].

—Et Ennio cive nobiles Rudiæ[10].

Ennius antiqua Messapi ab origine regis
Miscebat primas acies; Latiæque superbam
Vitis adornabat dextram decus: hispida tellus
Miserunt Calabri: Rudiæ genuere vetustæ:
Nunc Rudiæ solo memorabile nomen alumno[11].

Ennius was equally well versed in the Greek, the Latin, and the Oscan of antiquity: Q. Ennius tria corda habere sese dicebat quod loqui Græce et Osce et Latine sciret[12]; and it is said that in the Greek language he was the instructor of Cato the censor himself[13]: though there is a difficulty on that point, if Cato learnt Greek only in his old age[14], yet first became acquainted with Ennius in Sardinia, after his quæstorship, according to Cornelius Nepos, or after his prætorship, according to the Auctor De Viris Illustribus.

A. Gellius[15] has quoted from his seventh Annalis the character drawn by him nominally of Servilius Geminus; of which L. Ælius Stilo used to say it was meant for himself. It is certain that he acquired the esteem and even the friendship of Scipio the elder; so much so that he erected his statue on the monument of the Gens Cornelia[16]: and when he died he was buried in the tomb of the Scipios; the site of which was near the Porta Capena[17]. Carus fuit Africano superiori noster Ennius: itaque etiam in sepulcro Scipionum putatur is esse constitutus e marmore[18]. —Prior Africanus Q. Ennii statuam sepulcro suo imponi jussit[19].

Ennius emeruit Calabris in montibus ortus
Contiguus poni Scipio magne tibi[20].

Yet Jerome tells us[21] that according to some he was buried at Rudiæ; his remains at least were transferred from Rome to Rudiæ. A monument (a and was taken prisoner by him in the second Punic war. In point of antiquity he claims precedence over all the Roman

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[s] xxi. 38. Cf. Dionysius, i. 6 &c.

[8] Strabo, vi. 3. Cf. Jerome, Thes. Temp. Ol. cxxxv. 2.

[9] Cicero, De Oratore, iii. 42, 168.

[10] Pomponius Mela, ii. iv. p. 50.

[11] Silius Italicus, Punica, xii. 393.

[12] A. Gellius, xvii. 17.

[13] Auctor De Viris illustribus, M. Porcius Cato. Cf. Cornelius Nepos, Cato Major. Silius Italicus, xii. 342: 419.

[14] Cicero, De Senectute, 8, 26: Academica, iv. 2, 5.

[15] xii. 4. Of L. Ælius Stilo see Cicero, Brutus, 56, 205: Academica, i. 2, 8. Suetonius, De Claris Grammaticis, iii. ii. Clinton, Fasti Romani, B.C. 100.

[16] Cf. Val. Maximus, viii. xiv. 1. De Cupiditate Gloriæ. Claudian, xxiii. Præf. in Libr. De Consulatu Stilichonis, 1—20.

[17] Livy, xxxviii. 55, 56: 53. Cf. Cicero, De Finibus, ii. 35, 116: Tusculanæ Disp., i. 7, 13: De Senectute, 17, 61.

[18] Cicero, Oratio xxvi.: Pro Archia Poeta, 9, 22.

[19] Pliny, H. N. vii. 31, 144. Cf. Solinus, i. § 122.

[20] Ovid, De Arte Amandi, iii. 409.

[21] Thes. Temp. ad Ol. 153. 1. Cf. ad Ol. 150. 2.

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cenotaph) might be erected to him there. He certainly survived the death of the elder Africanus many years: the epitaph on his tomb was written by him. Declarat etenim Ennius de Africano,

Hic est ille situs, cui nemo civi' neque hostis
Quivit pro factis reddere operæ pretium[22].

The epitaph on his own tomb (the inscription on his statue there) in like manner was written by himself.

Aspicite o cives senis Ennii imagini' formam.
Hic vestrum pinxit maxima facta patrum.
Nemo me lacrymis decoret nec funera fletu
Faxit—cur? volito vivu' per ora virum[23].

He was no less acceptable to and no less intimate with another illustrious character of these times, M. Fulvius Nobilior: who took him on purpose along with him in his expedition against Ætolia, B.C. 189—188. Cato Fulvio ut crimen objecit quod consul in provinciam poetas duxisset[24]. Auctor De Viris, M. Fulvius Nobilior: Quam victoriam (de Ætolis) per se magnificam Quinctus Ennius amicus ejus insigni laude celebravit.

With respect to the chronology of his life, and that of his Annales; according to Cicero[25] he was born U.C. 515 of Varro, B.C. 239; and died at 70 years of age, Coss. Q. Marcio Cn. Servilio, U.C. 585, B.C. 169[26]: and he was 50, when he accompanied Fulvius Nobilior to Ætolia, B.C. 189. These dates are consistent with each other; and if Ennius actually died B.C. 169 we may collect from these notices that it must have been after the Ludi Apollinares at least, April 12—18, that year. But there is in Propertius an allusion to the subjects of Ennius' historical poem[27]: and one of these is clearly the triumphal return of Æmilius Paullus, after the war of Perseus, B.C. 167.

Regiaque Æmilia vecta tropæa rate.

If so, Ennius could not have died until after B.C. 167 at least. Suetonius too[28] speaks of the visit of Crates of Mallos to Rome, as ambassador from Attalus king of Pergamus, yet Sub ipsam Ennii mortem. Now this must have been the Attalus who succeeded to Eumenes; the last king of Pergamus but one: and as Eumenes himself was living all through the war of Perseus, and some time longer too, the accession of this king cannot be dated before B.C. 160, or B.C. 159. If Ennius was then just dead, his death must be dated about the same time too.

[22] Cicero, De Legibus, ii. 22, 27. Seneca, Opp. iii. 324: Epp. cviii. 32.

[23] Cicero, Tusculanæ, i. 15, 34: cf. 49, 117: De Senectute, 20, 73.

[24] Fragmenta Historicorum Vett. Rom. apud Sallustii opera, Havercampii, ii. 299. Catonis. Cf. Cicero, Pro Archia Poeta, 11, 27: Tusculanæ, i. 2, 3: Brutus, 20, 79. Ausonius, Epp. ad Symmachum, iv.: Symmachus Ausonio.

[25] Brutus, 18, 72: cf. Tusculanæ, i. 1, 3: De Senectute, 14, 50.

[26] Brutus, 20, 78: De Senectute, 5, 14. Cf. A. Gellius, xvii. 21. Thesaurus Temp. Ol. 135. 2.

[27] iii. ii. 5—8. Cf. Hor. iv. 8: 15–20. and the Scholia in loc.

[28] De Claris Grammaticis, ii. 1. Cf. A. Gellius, xvii. 21. ad fin.

historians, except Fabius Pictor. It appears too[t] that he was a Roman senator; from which we may conclude that he was probably a man of good education, and well informed in the history of his own country. But with respect to his date, in what manner it was obtained, we cannot undertake to say, at least from testimony; for none of the ancients has done more than simply state it in terms. And yet a date, which differed so widely from every other of the same kind, and especially from those of the greatest authority, it might be supposed, would have attracted notice, and raised some curiosity; particularly as recommended by the antiquity of its author. Dionysius no doubt had read his history; yet he has entered into no explanation of the reasons of his date: which must render it extremely doubtful whether he assigned any himself, or any which appeared to Dionysius to be of weight. It is possible indeed that as we proceed with our inquiries the probable grounds even of this opinion of Cincius may be divined; but at present we must treat his date as if it rested on his ipse dixit only: and we shall merely follow the example of older and more competent judges, if we set it altogether aside in comparison of the more authentic and better accredited conclusions on the same subject, which are yet to be considered*.

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[t] Dionysius, i. 74. Cf. Eusebius, Chron. Arm. Lat. i. 383. Syncellus, 365. 2.

The number of Ennius' Annales (each of which made a distinct book)[29] was 18. Pliny observes of the sixteenth[30], Q. Ennius T. Cæcilium Dentrem fratremque ejus præcipue miratus propter eos sextum decimum adjecit Annalem: which seems to imply that Ennius himself at first did not intend them to go beyond the fifteenth. Now A. Gellius tells us[31] from Varro that his twelfth Annalis was written in his 67th year: Idque ipsum Ennium in eodem libro dicere. If then he had written only twelve books up to the 67th year of his age, it is scarcely probable that he would write six more in less than three years from that time; as he must have done if he died at 70. We may conclude therefore that, according to the natural inference from the testimony of Propertius, corroborated virtually by that of Suetonius, he did live to see and to celebrate the triumphal return of Æmilius Paullus, and therefore did not die before B.C. 167 or 166 at least.

Now according to Varro[32] Ennius reckoned the city of Rome to have been 700 years old (more or less) in his own time.

Septingenti sunt paullo plus aut minus anni,
Augusto augurio postquam inclita condita Roma est.

We know not indeed in which of his Annales this statement was found, but it was most probably in one of the last. It is evidently too only a general statement, which might be either something more or something less than the truth. Let us suppose that he might intend it to come within 50 years of the truth, and therefore to be equivalent to 650 years exactly reckoned. If then it was actually referred to B.C. 166 or 167 it would come very near to the date of Timæus; for B.C. 167 + 650 = B.C. 817, only three years higher than B.C. 814.

With respect to Virgil, it did not escape the observation of the commentators of antiquity upon the Æneid that there were certain chronological difficulties, connected with the action of the poem, which were not to have been expected. Some of these may be attributable to the accidental circumstance that he did not live to put the finishing hand to it, and to make one part consistent with another throughout. But on this question we need not enter at present. If we may take the statements of the Æneid just as they stand, the outline of Virgil's chronology, from the capture of Troy,

[29] Cf. A. Gellius, xiii. 20: xviii. 5. Suetonius, De Claris Grammaticis, iii.

[30] H. N. vii. 28. p. 127.

[31] xvii. 21.

[32] De Re Rustica, iii. i. § 2. Cf. Suetonius, Augustus, vii. 4.

(or at least the beginning of the wanderings of Æneas,) to the building of Rome by Romulus, will be as follows:

i. Wanderings of Æneas before his arrival in Italy[33]	7
ii. From the arrival in Italy to the death of Æneas[34]	3
iii. From the death of Æneas to the foundation of Alba Longa[35]	30
iv. From the foundation of Alba Longa to the birth of Romulus and Remus[36]	300
v. From the capture of Troy to the birth of Romulus and Remus	340

If Virgil assumed Eratosthenes' date for the capture; this would give the birth of Romulus B.C. 1183 − 340 = B.C. 843: and if, with some others of the Romans of old, (for example, Tacitus,) he thought Romulus was 30 years old at the Foundation, not 18 or 19 merely, it would give the Foundation, B.C. 843 − 29, or B.C. 814, exactly Timæus' date.

* It is agreed that Cincius and Fabius Pictor were the oldest of the Roman historians; that both must have been living at the same time; that both were contemporaries of Hannibal, and eyewitnesses of the second Punic war; and that both wrote in Greek.

Livy, vii. 3, speaking of the first ceremony of the Clavifigium, or the driving of a nail in the Roman Capitol, on the Ides of September, U. C. 391 = 392, B. C. 362; gives Cincius the character of a diligent investi-

[33] Æn. i. 755: v. 85: 626. Cf. Serv. ad Æn. ix. 202.

[34] Æn. i. 261—266. Serv. in loc. and ad i. 259.

[35] Æn. i. 267—271: iii. 391: viii. 42—49.

[36] Æn. i. 272—274; and Servius in loc. and ad i. 242: 267: iv. 459.

Date of Ausonius. The same objections apply with still greater force to the date of Ausonius; the lowest of all next

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gator of antiquity, and of one who had paid particular attention to that kind of evidence: Diligens talium monumentorum auctor: the chronological meaning and use of which we may have occasion to consider hereafter.

Solinus[1]: Cincio Romam duodecima Olympiade placet conditam: which would leave it open to doubt in which of four years, B. C. 732—728, he actually dated the Foundation. It is a singular circumstance that, though this Cincian date is probably one of the least generally recognised by Greek or Roman historians, it appears in the Armenian Chronicle of Samuel Presbyter[2]. Romulus, annis xxxviii. Hic anno suo decimo nono, qui fuit Olympiadis undecimæ quartus, templa et mænia Romæ fundavit. hinc anni urbis conditæ putari incipiunt, qui anno primo Philippi mille numerantur.... congeruntur autem ex Ænea ad Romulum anni cccxxvi. There can be little doubt that, instead of Olympiadis undecimæ annus quartus, we should read Olympiadis duodecimæ annus quartus; and that would be the proper Cincian date, B. C. 728 ex Palilibus.

It may be observed however that among Roman historians themselves Florus in particular seems to have adopted this date; and to have deduced his chronology of the years of the city from it.

He twice reckons the interval from the Foundation to Augustus Cæsar at 700 years: Populus Romanus a rege Romulo in Cæsarem Augustum septingentos per annos tantum operum pace belloque gessit, ut si quis magnitudinem imperii cum annis conferat ætatem ultra putet[3]——Aususque tandem Cæsar Augustus septingentesimo ab Urbe condita anno Janum Geminum cludere, bis ante se clusum, sub Numa rege, et victa primum Carthagine[4]. These statements are consistent, if Florus reckoned the reign of Augustus from the date of his closing of the temple of Janus; which being here described as the *third* in order must be the same of which Augustus himself makes mention in the Marmor Ancyranum[5], as the third instance of its kind; and the historical date of which was U. C. 725 of Varro, B. C. 29, after the battle of Actium, the death of Antony, and the reduction of Egypt[6]. B. C. 29 then being reckoned the 700th year of the city, B. C. 728 must have been the first: and that is Cincius' date.

Florus continues[7]: Prima ætas sub regibus fuit prope ducentos quinquaginta per annos ... hæc erit ejus infantia. sequens a Bruto Collatinoque Consulibus in Appium Claudium Quinctum Fulvium consules ducen-

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[1] i. § 27.

[2] Pars Prior, pag. 23.

[3] i. Proœm. § 1.

[4] iv. xii. § 64.

[5] Apud Livy (Ruperti) iv. 788.

[6] Dio, li. 20: cf. liii. 25, 26. Livy, i. 19: cf. Epitome, cxxxiv. Plutarch, Numa, xx. Suetonius, August. xxii. 1. Virgil, Æn. i. 291, and Servius in loc. Orosius, vi. 20, 21.

[7] Lib. i. Proœm. 5.

to that of Cincius. It has no claim to consideration on the score of antiquity. It must be received, if at all, on the simple authority of Ausonius: it is recognised by no one else. We cannot indeed call in question the erudition and information of Ausonius; and as he proposes this date deliberately, we must suppose that he had his reasons for doing so. Yet, to judge from the manner in which he submits it to his friend Proculus, it would not appear that he thought there was any inconsistency between his own calculation of the age of the city and that which was to be collected from the Fasti themselves. It is certain that there were omissions or discrepancies in the various schemes of the Fasti which must have been in existence in his time; considerable enough to account for the difference which appears between his reckoning of A. D. 379 in the æra of the city and that of Varro. Not that we would venture to say his date was to be explained on this principle: but with respect to the discrepancies in question, that they actually existed in his time, and before his time, can scarcely be doubted[u].

iii. Date of Lydus: Date of the Chronicon Paschale Date of Fabius Pictor. These two dates, Ol. viii. 2. B.C. 746 ex Palilibus, and Ol. vii. 4. B.C. 748 ex Palilibus, differ by one year only in defect and in excess respectively from that of Ol. viii. 1. B.C. 747 ex Palilibus, the date of Fabius Pictor. So slight a difference may have been purely accidental; and each of these dates might be treated as substantially the

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tos quinquaginta annos patet... hoc fuit tempus viris armisque incitatissimum: ideo quis adolescentiam dixerit. dehinc in Cæsarem Augustum ducenti anni, quibus totum orbem pacavit. And this too makes the interval from the Foundation to the reign of Augustus, (as ushered in by the closing of the temple of Janus, the sign of an universal peace,) 700 years exactly. A Cæsare Augusto in sæculum nostrum haud multo minus anni ducenti; quibus inertia Cæsarum quasi consenuit atque decoxit: nisi quod sub Trajano principe movet lacertos; et præter spem omnium senectus imperii quasi reddita juventute revirescit[8]. From which it appears that he was writing, and compiling his history, in the reign of Trajan; probably at the time of his expedition to the East, which began U. C. 867 of Varro, 142 years after U. C. 725.

[8] Lib. i. Procem. 5. § 8.

[u] See our Dissertations on the Principles and Arrangement of an Harmony of the Gospels, 1837. vol. iii. 607, Appendix, Diss. xiii.

same with that of Pictor. Neither of them occurs elsewhere: and each must stand or fall with the credit of its own author. In all probability however we shall not err if we identify each of them with the date of Fabius Pictor.

With regard to Fabius Pictor, he too was contemporary with the second Punic war; and according to Livy[w] and Appian[x] he was sent to Delphi after the battle of Cannæ, B. C. 216. He too was a man of Senatorian rank[y], besides being one of the illustrious family of the Fabii: and though Cincius must have been living in his time, yet his history was written before Cincius', if it be true, as Dionysius informs us[z], that even Cincius took some of his own accounts from it. In point of antiquity therefore no Roman historian could pretend to greater authority than Fabius Pictor. And yet it may be doubted whether even *his* history was altogether compiled from native and original sources. Plutarch at least gives us to understand[a] that in his earliest accounts he followed a Greek historian Diocles of Peparethus: and his own history was certainly written in Greek *.

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* Adjecit scriptorum antiquissimus Fabius Pictor[1].—Apud Fabium longe antiquissimum auctorem[2].—*Κόϊντος μὲν Φάβιος ὁ Πίκτωρ λεγόμενος, ᾧ Λεύκιός τε Κίγκιος καὶ Κάτων Πόρκιος καὶ Πείσων Καλπούρνιος καὶ τῶν ἄλλων συγγραφέων οἱ πλείους ἠκολούθησαν*[3].—Omnes hoc historici, Fabii, Gellii; sed proxime Cælius[4]. According to Dionysius he wrote in Greek. Yet two quotations from an historian designated simply as Fabius, by whom we must consequently understand Fabius Pictor to be meant, occur in Aulus Gellius in Latin. Learned men have therefore inferred that he was the author of two historical works, one in Greek the other in Latin; the former entitled De Antiquitatibus Italiæ et Initiis Urbis Romæ, the other De rebus gestis populi Romani[5]. The Punic wars no doubt made part of these latter; and those are the subject of the strictures of Polybius[6], who accuses Fabius of an unfair bias, in favour of the Romans and against the Carthaginians, all through his history of these wars.

There is a doubt whether the proper Prænomen of this Fabius was Quintus or Numerius. Dionysius distinctly styles him Quintus; but Cicero would imply that he was called Numerius: Sunt hæc ut dixi

[w] xxii. 57: xxiii. 11: cf. xxii. 7: cf. Dionys. i. 6. Plutarch, Fabius Max. xviii.

[x] vii. 27.

[y] Polybius, iii. 9, 4.

[z] i. 79.

[a] Romulus, iii. viii.

[1] Livy, i. 44: cf. 55.

[2] ii. 40.

[3] Dionys. Hal. i. 79: cf. i. 6: vii. 71.

[4] Cicero, De Divin. i. 26, 55: 56.

[5] Ausonius Popma, Historicorum Rom. Fragm. apud Sallustium, ii. 257.

[6] i. 14, 3: 15, 12: 58, 5: iii. 8. 9, 1.

There is however only a slight difference between Fabius' date, B C. 747, and that of the Annales Maximi, B. C. 749, or that of Polybius, B. C. 750: and these two come the nearest of all to the truth. Polybius' date is in fact the true date itself. And with respect to such slight differences as these, it may be observed once for all, that they may possibly be accounted for in a given instance by accidental omissions in the regular succession of consular or other official years; which must make a corresponding difference in the reckoning of the years of the city. It frequently ap-

somnia fabularum. hisque adjungatur etiam Æneæ somnium, quod in Numerii Pictoris Græcis annalibus ejusmodi est ut omnia quæ ab Ænea gesta sunt...ei secundum quietem visa sunt[7]. Numerius was a Plebeian prænomen; and how it came to be assumed by the Patrician family of the Fabii the reader may learn from Festus[8]. Numerius Fabius Pictor is mentioned[9], along with Q. Fabius Maximus Gurges and Q. Ogulnius, as one of three legati to Ptolemy Philadelphus, about the time of the expulsion of Pyrrhus from Italy, B. C. 280—279: the same probably who was consul U. C. 488 B. C. 266, and too old to have been Fabius the historian; though it appears from Eutropius[10] that the historian Fabius also served in the Gallic war, under Lucius Æmilius, B. C. 225. The surname of Pictor was first given to an ancestor of the historian, for his skill in painting; an unusual accomplishment among the Romans either at that time or at any other: Si Fabio nobilissimo homini laudi datum esset quod pingeret[11]. The walls of the Ædes Salutis in Rome were decorated by him[12] cir. U. C. 452. B. C. 302.

Solinus[13]; Pictori octava (Olympiade Romam placet conditam:) which also would leave it doubtful in which of the four years from B. C. 748—745 he actually dated it. Eusebius and Syncellus[14] shew that he was really to be understood of Olym. viii. 1. B. C. 747 ex Palilibus.

A. Gellius[15]: From the ivth book of Fabius: Quapropter tum primum ex plebe alter consul factus est, duoetvicesimo anno postquam Romam Galli ceperunt. The Varronian date of the first Plebeian consulate was U. C. 388; that of the capture of the city was U. C. 364, 24 years before: so that Fabius' consular years in this part of his history were *two* years behind those of Varro. Yet the true date of the first Plebeian consulship was B. C. 365; and B. C. 365 + 22 would give the date of the capture B. C. 387: though the true date was B. C. 389.

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[7] De Divinatione, i. 21, 43.

[8] xii. 287. 16. Numerius.

[9] Dionys. Hal. xx. 4: cf. Valerius Max. iv. iii. 9. De Abstinentia et Continentia.

[10] iii. 2: cf. Orosius, iv. 13, 8.

[11] Tusculanæ, i. 2, 4.

[12] Cf. Pliny, H. N. xxxv. 7. Livy, x. 2.

[13] i. § 27.

[14] Eusebius, Chron. Arm. Lat. i. 383: Syncellus, 365. 4.

[15] v. 4.

pears from Livy that consuls were not recognized by Fabius Pictor, who nevertheless stood in the Fasti in his time, and do so still. It is certain also that between the Regifuge and Fabius Pictor's time there was an interruption of four or five years' duration in the regular succession of Magistratus ordinarii; which interruption in after times was frequently overlooked. We have no authority indeed for saying that Fabius was ignorant of it, or inattentive to it. It is self-evident however that in the continuous reckoning of consuls or other annual magistrates an omission of four or five years must affect the date of the first consulate, and of the expulsion of the kings; and lead to its being assumed four or five years lower than the truth. And an error in defect of four or five years in the date of the Regifuge might proportionably affect the date of the Foundation, and make it four or five years later also; for the absolute interval from the Foundation to the expulsion of the kings under all circumstances seems to have been assumed much in the same man-, about 242 or 243 years *.

iv. Date of Piso. The antiquity of Lucius Calpurnius Piso, though much inferior to that of Fabius or Cincius, is something considerable in comparison of that of the rest of the

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* As Fabius lived and wrote at a time when the regular Cycle of the Calendar was still in use, or could have been only very recently laid aside, this Cycle in his time was capable of being traced back to its epoch, B. C. 712, without any difficulty and with absolute certainty. Let us suppose that he knew B. C. 712 to be its date; and that he reckoned this epoch of the calendar to have been the first year of Numa also. The true length of the reign of Romulus before Numa was 35 years. And if Fabius was aware of that fact too, and yet included the interregnum between Romulus and Numa in the last year of Romulus; he would get his year of the Foundation, B.C. 747, simply by reckoning 35 years back from B.C. 712. And this, it appears to us, is probably the true account of the way in which it was obtained. No one could be ignorant in his time that B. C. 232 was the first year of a cycle. Consequently between B. C. 232 and the epoch of the Calendar there must have been a certain number of complete cycles; with respect to which a cycle more or a cycle less than the truth would make a difference of 24 years: and that would be a greater error either of excess or of defect than Fabius could possibly fall into, in going back from his own time to the beginning of the reign of Numa. He would go back therefore 20 cycles, or 480 years, from B.C. 232; and that would take him directly to the epoch of the Calendar, B.C. 712.

Roman historians properly so called*. Whether this date of the foundation, B. C. 758 ex Palilibus, is actually *his*, that is, whether we have succeeded in recovering his epoch of the æra of the city from the fragments quoted by Suidas and Censorinus, we leave to the judgment of the reader. But even if we have, the date itself must stand or fall on the authority of Piso; since it appears to be confined to him. The Varronian date is the earliest which could be admissible; and yet this exceeds the Varronian by five years. If the Varronian itself cannot be sustained, much less can this of Piso. We have enumerated this date among the rest, as we felt ourselves bound to do; and if it is really that of Calpurnius Piso, hitherto unknown and unsuspected, it cannot fail to be interesting to the classical reader. But we do not hesitate to set it aside as considerably too high for the truth.

* The proper style of this historian appears to have been Lucius Calpurnius Piso Frugi. He has also the surname of Censorius in Latin, Τιμητικὸς in Greek[1]. And hence his age. In the succession of censors he represented the 87th lustral cycle, U. C. 630 of Varro B. C. 124, along with Q. Cæcilius Metellus Balearicus. We should have learnt from Cicero[2] that he was a contemporary of Caius Gracchus: and it appears from the Fasti Consulares that he was actually consul along with P. Mucius Scævola, U. C. 621 B. C. 133, in the year of the death of Tiberius Gracchus.

The title of his histories too was Annales. Varro[3]; L. Calpurnius Piso in Annalibus suis.—Livy[4]; Memoriane fugerit in digerendis Annalibus. Cicero[5] seems to place him in point of antiquity next to Cato; yet perhaps both Cassius Hemina and Gellius as historians were older.

It does not appear that there were two Roman historians of this name, one of whom had the prænomen of Lucius and the other that of Cneus. But if there was only one, and he too of consular age B. C. 133, and of censorian age B. C. 124; it is something remarkable that Plutarch in his Life of Marius[6] should refer to a Cneus Piso, ἀνὴρ ἱστορικὸς, who must have been living at the time of the death of Marius, the Roman January B. C. 87 exeunte. If this was really the historian Piso he must have lived to a great age; and must have brought down his annals almost to the end of his life. According to Cicero[7] he was Tribunus Plebis U. C. 605 B. C. 149, 63 years before B. C. 86.

[1] Censorinus, xvii. Dionys. Hal. ii. 38: iv. 7. Cf. A. Gellius, vi. 9: xi. 14.

[2] Oratio xi. Pro Fonteio, 13.

[3] De Lingua Lat. iv. 41.

[4] ix. 44. Cf. Pliny, H. N. ii. 54: xxviii. 4. Cicero, ad Fam. ix. 22.

[5] De Legibus, i. 2, 6. 7.

[6] xlv.

[7] Brutus, 27. Cf. De Officiis, ii. 21. In Verrem, iii. 84.

SECTION II.—*On the date of the Annales Maximi,* B. C. 749 *ex Palilibus.*

According to the account of the Annales Maximi which has been left on record, they were journals, in which the remarkable events of every year were noted. The duty of keeping these journals belonged to the Pontifex Maximus; and there once existed at Rome a regular series of 80 volumes of this description, extending down to the time of Publius Mucius Scævola, after which they appear to have ceased.

Servius, ad Æn. i. 373: Et vacet annales.—Ita autem Annales conficiebantur. tabulam dealbatam quotannis Pontifex Maximus habuit, in qua præscriptis Consulum nominibus aliorumque magistratuum digna memoratu notare consueverat domi militiæque terra marique gesta per singulos dies. cujus diligentiæ annuos commentarios in octoginta libros veteres retulerunt; eosque a Pontificibus Maximis a quibus fiebant Annales Maximos appellarunt.—Atqui ne nostros contemnas, inquit Antonius, Græci quoque sic initio scriptitarunt ut noster Cato, ut Pictor, ut Piso. erat enim historia nihil aliud nisi annalium confectio. cujus rei memoriæque publicæ retinendæ caussa, ab initio rerum Romanarum usque ad P. Mucium Pontificem Maximum res omnes singulorum annorum mandabat litteris Pontifex Maximus, efferebatque in album, et proponebat tabulam domi, potestas ut esset populo cognoscendi: ii qui etiam nunc Annales Maximi nominantur[b] *. These records consequently were properly

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* Horace, Epp. ii. i. 15.

Sed tuus hic populus, sapiens et justus in uno,
Te nostris ducibus te Grajis anteferendo,
Cetera nequaquam simili ratione modoque
Æstimat; et nisi quæ terris semota suisque
Temporibus defuncta videt fastidit et odit.
Sic fautor veterum, ut tabulas peccare vetantes,
Quas bis quinque viri sanxerunt, fœdera regum
Vel Gabiis vel cum rigidis æquata Sabinis,
Pontificum libros, annosa volumina vatum,
Dictitet Albano Musas in monte locutas.

Here the Annales Maximi and the other Commentarii Pontificum, (but

[b] Cicero, De Oratore, ii. 12.

Annals, i. e. annual histories or even journals, being kept from day to day as well as from year to year. The earliest Roman histories of any other kind seem to have been formed at first on the model of these. It was common to them all to bear the name and title of annals; Libri Annales; and no doubt to be digested accordingly from year to year.

If then these diurnal or annual chronicles began *ab initio rerum Romanarum*, and were kept by the Pontifices Maximi from the first; they must have gone back as far as the institution of the Pontifical college at least: and that was the very beginning of the reign of Numa, within 30 or 40 years of the Foundation itself. It is evident therefore that in point of antiquity no testimony could be entitled to an higher degree of authority than that of these Annals. We may form an idea of the minutiæ into which they descended from the following allusion to their contents, which occurs in Aulus Gellius, in the shape of a quotation from the fourth of the lost books of the Origines of Cato the Censor[c]: Non libet scribere quod in tabula apud Pontificem Maximum est, quotiens annona cara, quotiens lunæ aut solis lumini caligo aut quid obstiterit. The truth of this latter observation is repeatedly illustrated by Livy; who often enumerates among the other prodigies of a given year the observation of some darkness greater than usual, some obscuration or other of daylight, recorded no doubt in these journals: which modern chronologers too have sometimes construed as if it was a casual intimation of a solar eclipse; though in reality no-

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no doubt first and principally the historical records of that name,) are recognized as still in existence, as still accessible, as still read; yet in point of antiquity as inferior to nothing which Roman archæology had to shew: neither to the treaties of the oldest kings, (cf. Dionysius Hal. iv. 58.) nor to the Sibylline oracles, (which in fact came into possession of the Romans only in the reign of Tarquinius Superbus, as we hope to see hereafter,) or the like.

Of these Annales in general, see Cicero, De Legibus, i. 2: Brutus, 14: Festus, xi. 232. 7. Maximi Annales: Dionys. Hal. viii. 56: Pliny, H. N. viii. 78; xxxiv. 11. 218: A. Gellius, iv. 5; v. 18: Auctor, De Origine Urbis Romæ, *passim*: Historiæ Augustæ SS. Vopiscus, Tacitus Imperator, i. where they are quoted even for the account of the first interregnum at Rome, that which ensued on the death of Romulus.

[c] Noctes Atticæ, ii. 28.

thing of *that* kind is discoverable at such times from calculation at least.

If however such accidental phenomena as these, and other particulars equally unimportant, (as they appear to us,) were carefully noticed in these journals; we may take it for granted that nothing really important, nothing of a grave and serious character, would be knowingly omitted by them. And as no year could be destitute of something of this kind, (something intrinsically worthy of notice,) there would be every reason *a priori* to conclude that in these Annales Maximi the Romans must have had an uninterrupted series of years, (each of them distinguished by its proper events,) connumerary with those of the city; and that too whether the actual commencement of the series went back to the Foundation, or only to the institution of the Pontifical college. If that college was instituted by Numa within one generation of the Foundation, and in the lifetime of many who had been eyewitnesses of the Foundation; it could scarcely be unknown in what year of the city these journals, even as kept only from the time of the pontiffs, must have begun.

Under these circumstances, with reference to any such question as this of the date of the foundation, we could not desire a better authority than that of these Annals: and, could only one authentic date in terms of the Æra of the city be produced from them, it would seem to be a decisive criterion of its age at the time. Now the date of the solar eclipse recovered from Cicero De Republica[d] is a date of that kind; a date of the most authentic description so far as the day is concerned, i. e. the Nones of June: being substantiated and placed out of question both by the Julian date of that day in the Roman calendar of the time being, and by the Julian date of the eclipse, as ascertained by calculation, which falls on the same day too. But with respect to the year of the city, it must be admitted that Cicero has qualified his statement of it by the addition of *fere*, Anno trecentesimo et quinquagesimo fere post Romam conditam: as if the day of the eclipse, the Nones of June, had been expressly recorded in these Annals, but not the year. It is not however credible that the day would be expressly recorded, and not the year also. But it may be observed that, according to the account of the way in which these journals were kept, produced supra[e], it does not appear that the note of the year was consigned to them except once for all, at the beginning of the year. Every thing found in these annals belonged of course to some one year; but what that was could be known only from the proper chronological marks or specifications premised to it. And these were probably at first the years of the kings, and afterwards the names of the magistrates of the time being. Cicero might have to collect the year of the eclipse from that of the consuls under whom it was registered: his qualification of the date of the year may consequently express merely his own uncertainty respecting the construction of the entry, and not any doubtfulness of the entry itself with respect to the year as well as to the day of the eclipse. Yet, expressed as it is, the true year intended we may reasonably conclude must have been either U.C. 350 or U.C. 351. The Julian date of the eclipse was June 21, B.C. 400; from which, if assumed to be = U.C. 350, we deduce U.C. 1 ex Palilibus = B.C. 749; if equal to U.C. 351, we get U.C. 1 ex Palilibus B.C. 750. The latter would be the true date of the foundation itself: and B.C. 749 ex Palilibus would be only one year in defect of the truth. Yet one or other of these must have been the pontifical date of the foundation; the date of the Annales Maximi*.

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[d] i. 19. vide supra, p. 10.

SECTION III.—*On the Varronian date of the Foundation, B.C. 753 ex Palilibus.*

Of the numerous works of Varro, (amounting to little short of 500 on different subjects,) none has descended to posterity entire; nothing of his exists at present except fragments: so that the actual grounds of his date of the Foundation, whatsoever they were, can never be known for certain; and if we accept it at all, it must be out of mere and simple deference to the name and reputation of its author. The only idea which we can now form of the mode in which Varro appears to have proceeded, when reasoning out the fundamental points of his chronological system in general, is suggested by the following passage of Censorinus[f]: Nunc vero id intervallum temporis tractabo, quod ἱστορικὸν Varro adpellat. hic enim tria discrimina temporum esse tradit. primum ab hominum principio ad cataclysmum priorem; quod propter ignorantiam vocetur ἄδηλον. secundum a cataclysmo priore ad Olympiadem primam; quod quia in eo multa fabulosa referuntur μυθικὸν nominatur. tertium a prima Olympiade ad nos; quod dicitur ἱστορικὸν, quia res in eo gestæ veris historiis continentur. primum tempus......de tertio autem tempore fuit quidem aliqua inter auctores dissensio, in sex septemve tantummodo annis versata. sed hoc quodcunque caliginis Varro discussit; et pro cetera sua sagacitate nunc diversarum civitatium conferens tempora, nunc defectus eorumque intervalla retro dinumerans, eruit verum, lucemque ostendit per quam numerus certus non annorum modo sed et dierum perspici possit.

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* The true date appears to have been B.C. 749 = U.C. 5 of Varro, as we shall probably see hereafter. And the same account is to be given of the mode in which this date was obtained as of that of Fabius, B.C. 747. The Annales began to be kept B.C. 713, in the first year of Numa, and this was some time or other assumed = U.C. 37, either by reckoning the reign of Romulus at 36 years, inclusive of the interregnum between his and Numa's, or by allowing 35 years for his reign and one year for the interregnum.

[e] Page 27.

The foundation of Rome, according to any date of that event which could reasonably have been assumed, must have fallen within the limits of the historical period thus defined; and no doubt must have been included by Censorinus among those controverted points which the sagacity of Varro had determined. He continues accordingly: Secundum quam rationem (i.e. the Varronian) nisi fallor hic annus, cujus velut index et titulus quidam est Ulpii et Pontiani consulatus, ab Olympiade prima millesimus est et quartus decimus ex diebus duntaxat æstivis, quibus agon Olympicus celebratur; a Roma autem condita DCCCCXCI, et quidem ex Parilibus, unde urbis anni numerantur. And these calculations are agreeable both to the Varronian epoch of the foundation, and to the received date of the Olympic æra. For the consular year of Ulpius and Pontianus in the Fasti according to Varro was U.C. 991 ex Kal. Januariis, Jan. 1, A.D. 238;

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[f] De Die Natali, xxi.

which gives U.C. 1 ex Palilibus B.C. 753, the Varronian date of the foundation. The second year of the 254th Olympiad began A.D. 238 at midsummer; so that A.D. 238 ex diebus æstivis was the 1014th year of the Olympic æra, dated B.C. 776 ex diebus æstivis also*.

It seems however that, with regard to the proper limits or proper epoch of the strictly historical period, there was always, and even among the best authors, a difference of six or seven years; the removal of which had been reserved for Varro. It is much to be regretted that Censorinus has not explained himself more distinctly on this point; in order that we might have been enabled to judge for ourselves whether the means employed by Varro for that purpose were peculiar to him, or open also to those who preceded him; or were more likely to have been properly applied by him than by any of his predecessors; or were competent in themselves to enable him to arrive at the truth in every instance with so much exactness as Censorinus supposes he did. It is observable that in some of these controverted cases Censorinus tells us he had determined the point in dispute not to the *year* only but even to the *day*; i. e. not merely what number of years there must have been between such and such points of time, but even what number of days. But he gives us also to understand that he did this by the comparison of eclipses, at different periods of time; and that implies that he must have been in possession of the Saros, and must have applied it for such purposes. The Saros was certainly known of in various parts of the ancient world long before the time of Varro. There was both an Egyptian cycle of the Saros, the original cycle of that kind, and a Chaldaïc and an Hellenic one, each of them derived from the Egyptian[g], and each of them older than the time of Varro; and our researches hereafter will possibly bring to light an Etrurian cycle also: any of which might have been known to him, and might have been actually applied by him in this manner for the decision of questions in chronology or ancient history; though it is most probable that the cycle of which he actually made use was the Chaldaïc. But in order to this application of the Saros, as a chronological and historical instrument, something more than the cycle itself would be necessary; some previous knowledge of such matters of fact as eclipses in particular, which could be derived from testimony only: an historical record of solar or lunar eclipses themselves, reaching as far back as the limits of the period which Varro was undertaking to define. And it may very well be questioned whether any such record actually existed, or could actually have been known to Varro; especially in these remote times, long before regular history, among the Greeks and the Romans in particular, had yet come into being.

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* Censorinus was writing his treatise De Die Natali between June 25 A.D. 238 and January 1 A.D. 239 (cf. our Fasti Catholici, ii. 461. Diss. xii. ch. iv. sect. iv.): and U.C. 991 ex Kal. Januariis strictly speaking anticipated six months on the 1014th year of the Olympic æra, dated from midsummer, and three months and upwards on the 991st year of the city, dated from the Palilia, April 21. The latter half of A.D. 238 in which Censorinus was writing was common both to U.C. 991 reckoned in either way, and to Ær. Ol. 1014 reckoned from midsummer.

[g] See our Fasti Catholici, iv. 91. sqq. Diss. xv. ch. xiii.

There is good reason indeed to suspect that, on this particular question of the date of the foundation, Varro's judgment was mainly if not altogether determined by a very precarious and insufficient ground of inference; as every chronologer at present would concur to pronounce it, whatsoever the chronologers of antiquity might have thought about it. Plutarch has told us in what manner he proposed to his friend Tarutius to decide each of these points, both that of the birth of Romulus and that of the foundation of the city; viz. by casting the nativity of each: and in what manner and to what effect Tarutius solved the problem in each instance. We shall not enter upon the explanation of this process at present; because we shall have occasion to do so at a future period of our work, and for the illustration of a different part of our subject. It seems however that the Varronian date of the foundation was based after all on an astrological calculation; its ultimate ground of support was the astrology of antiquity. It makes little difference to the result whether astrology was called in to find out the true year of the Foundation, or to confirm and authenticate one which had been previously fixed upon. There were but two or three years, as we shall see by and by, among which there was any room for doubt; and it is very possible that Varro's previous inquiries had already led him to seek for the true year within the proper limits, narrow as they were: in which case nothing would seem so likely to decide the question at last, nothing to be so decretory and final, as an astrological calculation. It comes to the same thing therefore whether the calculation discovered the year, or confirmed it. In either case the ultimate authority for the date was the astrology of antiquity: and though that might be a very sufficient reason why Varro and Tarutius should have acquiesced in it, it can be none why we should do so at the present day.

The Varronian epoch of the foundation did certainly in the course of time supersede every other of the same kind; and the Fasti have long been exclusively adapted to this one, as if this alone was the truth. But it does not appear that as first proposed it carried more weight with it than that of Cato, or that of the Fasti Capitolini. It has been more generally received among posterity, than it was among Varro's own contemporaries. And though this may be said to have confirmed his date, as if the deliberate judgment of posterity had been pronounced in its favour; in reality it would be difficult to show that even the general preference of the Varronian epoch by the learned of subsequent times has been any thing but the effect of a concurrence of accidental circumstances. It cannot be resolved into a deliberate judgment, founded on previous inquiry and conviction. It rests mainly on prescription, on length of time, on the force of habit, on a kind of agreement not to disturb what has been so long in possession of the Tables, and is so generally received and so well understood. In this respect it stands at present on the same kind of footing as the vulgar epoch of the Nativity. Both have been received upon authority, and both have established themselves by degrees.

It is certain however that the Varronian epoch was not received from the first; that for one or two centuries at least the Catonian or the Capitoline date in particular was quite as generally recognized, or even more so. The Capitoline date and not the Varronian seems to have been that which had the sanction of public authority; for, as we shall probably see by and by, the Acta Publica not long after the time of Varro were registered in the Capitoline not in the Varronian æra of the city. In the course of centuries indeed, and the longer the city of Rome continued to exist, the greater became the disposition to exaggerate its antiquity. The Urbs Æterna could not number its years from any date lower than the Varronian. Besides which the great erudition of Varro, (the doctissimus Romanorum and almost Græcorum,) no doubt appeared deservedly to entitle his deliberate opinions to more than ordinary deference and respect; especially on questions involving so much research, and so much antiquarian learning, and so directly connected with the history of his own countrymen. We may judge of the probable influence of this prejudice in his favour with posterity, from the effect which it had upon Cicero; who, in his work De Republica, written B. C. 54, if not in his Tusculan Disputations also, written B. C. 45[h], followed Polybius' date of the foundation; yet in his Brutus, (composed about the same time,) professedly adopted and followed that of Varro[i] *.

* Among the authors contemporary with Varro, or later than Varro, who adopted the Varronian reckoning of the æra of the city, we may enumerate the following:

i. Pomponius Atticus: and Cicero. Solinus[1]: Pomponio Attico et M. Tullio Olympiadis sextæ anno tertio (Romam placet conditam): i. e. B. C. 753 ex Palilibus.—Cornelius Nepos[2]: Moris autem majorum summus imitator fuit, antiquitatisque amator: quam adeo diligenter habuit cognitam, ut eam totam in eo volumine exposuerit quo magistratus ornavit. nulla enim lex neque pax neque bellum neque res illustris est Populo Romano quæ non in eo suo tempore sit notata.—Cicero[3]: Cognoscat etiam rerum gestarum et memoriæ veteris ordinem, maxime scilicet nostræ civitatis .... quem laborem nobis Attici nostri levavit labor; qui conservatis notatisque temporibus, nihil cum illustre prætermitteret, annorum septingentorum memoriam uno libro colligavit. nescire autem quid antea quam natus sis acciderit, id est semper esse puerum.

It was no doubt in this compilation that Atticus followed the Varronian reckoning: and, if we may assume that Cicero spoke deliberately when

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[h] i. 3. 37: v. 32. Cf. De Divin. ii. 1–7. Middleton, Life of Cicero, ii. 394.

[i] 15. 16. 18. 72. We may infer from this distinction that Varro's date had not been made public so early as B. C. 54, yet had been so by B. C. 45 or 44. Tarutius' calculations, as we hope to show hereafter, were actually made B. C. 54: and Cicero himself was aware of them when he wrote his De Divinatione (B. C. 45 or 44): cf. ii. 47.

[1] i. 27.

[2] Atticus, xviii. 1.

[3] Orator, 34, 120.

SECTION IV. — *On the Capitoline date,* B. C. 752 *ex Palilibus.*

The Fasti Capitolini have been so denominated from the locality in which they were set up at Rome, after their dis-

he stated that it comprehended a period of 700 years, it must have been brought down to U. C. 701 of Varro, B. C. 53. And that would be a remarkable coincidence; because B. C. 54, as we hope to shew hereafter, was the very year in which Varro and Tarutius finally determined their epoch of the Foundation.

Cicero[4]: Sunt, inquam, ista Varro. nam nos in nostra urbe peregrinantes errantesque tanquam hospites tui libri quasi domum deduxerunt, ut possemus aliquando qui et ubi essemus agnoscere. tu ætatem patriæ; tu descriptiones temporum; tu sacrorum jura, tu sacerdotum; tu domesticam tu bellicam disciplinam; tu sedem regionum locorum; tu omnium divinarum humanarumque rerum nomina genera officia causas aperuisti. The Academica had just been written B. C. 45[5]; and the first book was dedicated to Varro. The works De Republica and De Oratore were previously in existence. Ad Fam. ix. 21. we have an instance of the Varronian reckoning: L. Papirius Crassus Dictator U. C. 415[*]; et quadriennio post (U. C. 418 of Varro) consul cum K. Duilio.

ii. Verrius Flaccus. Suetonius[6]: Verrius Flaccus libertinus .... quare ab Augusto quoque nepotibus ejus præceptor electus transiit in Palatium cum tota schola ... decessit ætatis exactæ sub Tiberio. statuam habuit Præneste in inferiore fori parte contra hemycyclum, in quo fastos a se ordinatos et marmoreo parieti incisos publicavit. These Fasti are still partially in existence, and have been published in the collection of Foggini. Opposite to the Kalends of Januarius[7] there is a note: Quia. eo. die. mag. ineunt. quod. cœpit. ... C. A. DCI. Since this change is known to have been made U. C. 601 of Varro, B. C. 53, it may be inferred that the Varronian epoch was adopted also by this learned grammarian his contemporary. And this fact, if true, must be decisive that the Fasti Capitolini, which reckon from one year lower perpetually, could not have been compiled by him. Pompeius Festus' work De Verborum Significatione has been considered an epitome of a larger work of the same kind by Verrius Flaccus; but the æra followed in that does not distinctly appear. Jerome[8] styles this grammarian Marcus Verrius Flaccus; but it has been made a subject of dispute whether his prænomen was Marcus or Quintus.

iii. Pliny the Elder. The numerous dates in the style of the æra of the covery; viz. the ancient Capitol. But their proper name is that of the Fasti Consulares, Censorii, et Triumphales; and as

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[4] Academica, i. 3, 9.

[5] Ad Atticum, xiii. 13: cf. 12. 14. 16. 19. 20.

[*] Livy, viii. 12. dates this dictatorship U. C. 414 of Varro, in the consular year of Titus Manlius iii and P. Decius Mus (viii. 3.) Probably Cicero's text should be corrected U. C. CCCCXIV for CCCC XV.

[6] De Claris Grammaticis, xvii. §§ 1. 3.

[7] Apud Foggini, p. 3.

[8] Thes. Temp. Ol. 196. 4.

city which occur in the Historia Naturalis of Pliny the Elder are or should be agreeable to the Varronian reckoning. If there is any difference between them and the Varronian in a given instance, that is reason sufficient for suspecting the soundness of the text[9].

iv. Tacitus. In the Annales and the Historiæ of Tacitus the consular years in the æra of the city are those of Varro[10]. The secular games of Claudius are dated by him[11] Octingentesimo post Romam conditam; and their date according to Varro too was U. C. 800, A. D. 47. And in the same passage he dates them also in the 64th year from those of Augustus, U.C. 737 of Varro, B.C. 17; and that too gives their date strictly U.C. 800, A.D. 47[12]. In one instance he observes[13]; Eodem anno (U.C. 811, A.D. 58) Ruminalem arborem in comitio, quæ super octingentos et quadraginta ante annos Remi Romulique infantiam texerat, mortuis ramalibus et arescente trunco deminutam prodigii loco habitum est; donec in novos fœtus reviresceret: and this too would be consistent with the Varronian epoch of the foundation, B.C. 753, if Tacitus (as Virgil appears to have done) dated the birth of Romulus 30 years before the Foundation; i. e. B.C. 783.

The Annales and the Historiæ were later than the treatise De Moribus Germanorum. In this latter he seems to have followed the Capitoline æra. Sexcentesimum et quadragesimum annum urbs nostra agebat cum primum Cimbrorum audita sunt arma Cæcilio Metello ac Papirio Carbone Coss. (U. C. 641 of Varro): ex quo si ad alterum imperatoris Trajani consulatum (U.C. 851 of Varro) computemus, ducenti ferme et decem anni conliguntur. tamdiu Germania vincitur[14]. The consular years here specified in the æra of the city are one number lower than the Varronian: i. e. they are the Capitoline not the Varronian.

v. A. Gellius. That A. Gellius probably followed the Varronian reckoning of the æra of the city might perhaps be inferred from his list of synchronisms between remarkable points of Greek and Roman chronology respectively[15]; though these do not in every instance square with the Varronian dates, as they ought to do. In another instance too[16] he dates the first case of a divorce at Rome (Sp. Carvilius Ruga's) U. C. DXXIII, yet Coss. M. Atilio P. Valerio: and these were consuls U. C. 527 of Varro. The fault in this instance however may be in the reading DXXIII for D XXVII. Yet ix. 11. of the Noctes Atticæ compared with Livy vii. 24, 25, 26, is a clear case of the Varronian reckoning: Id factum est anno quadringentesimo quinto post Romam conditam; in the consular year of they were discovered under ground near the Forum Romanum of the ancient city, it may be presumed that they were

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[9] Cf. our Dissertations on the Principles and Arrangement of an Harmony of the Gospels, 1837, iv. 82 sqq. App. Diss. xvii.

[10] Cf. Ann. xi. 22: Histor. i. 1; iii. 34. 72: iv. 58 (38). 74.

[11] Ann. xi. 11.

[12] Cf. Pliny, H. N. vii. 49. 217.

[13] Ann. xiii. 58. Cf. 34.

[14] De Moribus Germanorum, 37.

[15] xviii. 21.

[16] iv. 3.

Furius and Appius; U.C. 405 of Varro also. Elsewhere indeed[17], where he is recording a statement of another person (a certain Sex. Cæcilius a celebrated jurisconsult of the time) he has a date which can be reduced only to the Polybian æra: Trecentesimo quoque anno post Romam conditam tabulæ compositæ scriptæque sunt: a quo tempore ad hunc diem anni esse non longe minus septingenti videntur. The Varronian date of the first body of Decemvirs was U.C. 303; and this is three years lower, U.C. 300. It is therefore the Polybian date.

vi. Dio Cassius. The Varronian reckoning is followed by Dio Cassius throughout his history[18]. It is consequently followed by Zonaras also: —Cn. Cornelius, A. Atilius Calatinus, (U.C. 500 of Varro)—*Πεντακοσιοστὸν δ' ἦν ἔτος ἀφ' οὗπερ ἡ Ῥώμη συνέστη*[19]. In like manner the 4th consulate of Claudius (A. D. 47) is reckoned = U. C. 800[20].

vii. Historiæ Augustæ SS: Nam omnia hæc Philippus exhibuit sæcularibus ludis et muneribus atque circensibus, quum millesimum ab urbe condita annum in consulatu suo et filii sui celebravit[21]: i. e. U.C. 1000 of Varro, A. D. 247. Imp. M. Julio Philippo ii. M. Julio Philippo Cæsare Coss.: from which we may infer that the authors of this collection also probably followed the Varronian reckoning.

viii. Eutropius: De Romulo[22]: Is cum inter pastores latrocinaretur, octodecim annos natus, urbem exiguam in Palatino monte constituit xi Kal. Maji, Olympiadis sextæ anno tertio; post Trojæ excidium, ut qui plurimum maximumque tradunt, trecentesimo nonagesimo quarto. The consular years of Eutropius then should agree with the Varronian. Those which appear in his text at present often agree with the Catonian, two years lower than those of Varro; as Livy's also should do. But his numbers are frequently corrupt. The very last date in his history, the consular year of Jovianus and Varronianus, in his text at present is U. C. 1119; though the Varronian date was U.C. 1117, A.D. 364.

ix. Orosius: Anno post eversionem Trojæ CCCC XIV, Olympiade autem VI..... Urbs Roma in Italia a Romulo et Remo geminis auctoribus condita est[23]. In another place the Trojan war is dated 430 years before the Foundation[24]: and that being reckoned from B.C. 1183 midsummer would give the Foundation B.C. 753 ex Pal. It is probable therefore that Orosius' date in the Olympic æra was Ol. vi. 3: i. e. Varro's; though his text in the former instance is defective. His numbers indeed repeatedly exhibit great differences from those of Varro: yet he has dates altogether the same with the Varronian; U.C. 725. Aug. v. and Sex. Apuleius, B.C. 29[25]—U.C. 726. Aug. vi. Agrippa ii. B.C. 28[26]—U.C. 767. the year of the originally set up there. The principal portion of these Fasti was found in A.D. 1547, and was published at Rome two years after by Bartolemeo Marliani of Milan. Another fragment (part of the Fasti Triumphales) came to light in A.D. 1563; and still more recently, i.e. not longer since than A.D. 1816, some more fragments of the consular Fasti were dug up out of the ruins of Rome: by means of which two *lacunæ* previously existing, one from U.C. 294 to U.C. 303, the other from U.C. 349 to U.C. 358, have been in a great measure filled up*.

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[17] xx. 1.

[18] Cf. xl. 1; lii. 1. 41: lx. 29.

[19] Zonaras, viii. 14. 392 D.

[20] Ibid., xi. 9. 563 C.

[21] Capitolinus, Gordianus Tertius, 33.

[22] i. 1. Cf. Suidas, in Καπίτων.

[23] ii. 4. 92. Havercampi.

[24] i. 17.

[25] vi. 20. 440, 441.

[26] vi. 21. 444.

In point of antiquity the date of these Fasti stands next to that of Varro. The æra of the city in this compilation ranges invariably one year lower than that of Varro; so that, if the Varronian epoch of the æra is B.C. 753 ex Palilibus, the Capitoline must be B.C. 752 ex Palilibus. The author or authors of this compilation are not known; though some of the learned have ascribed it to Verrius Flaccus, and some to Pomponius Atticus. Neither is it known when it was made, or when it was published; and whether by authority or not: though from its being engraved on stone and erected in the Forum Romanum it must be considered a public monument. All that can be said concerning it at present is that, when

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death of Augustus[27]—U.C. 790. the first year of Caligula[28]. His date of the secular games of Philip is a clear proof of his rule. The true date of that reign was about the beginning of July A.D. 244 U.C. 997; so that the Palilia, April 21, U.C. 1000 of Varro A.D. 247, necessarily fell in the third year of his reign. The accession of Philip is dated by Orosius U.C. 997[29]: and then Post tertium imperii ejus annum millesimus a conditione Romæ annus impletus est: i.e. U.C. 1000 = A.D. 247, the Varronian proportion.

* These remains were discovered between the Forum (Romanum) and the Via Sacra, near the ancient ædes or temple of Antoninus and Faustina, at present the church of St. Laurence; and in some other quarters in the same vicinity: and they were collected, digested, and set up in the Capitol, at the expence of the cardinal Alexander Farnesi. The Fasti Consulares and Censorii go together in these monuments; the Fasti Triumphales are distinct from the other two. In the latter every triumph is marked in the proper year of the city. In the former the years of the city are marked only every ten years; and the first number of that kind which occurs in them at present (in Piranesi's edition) is U. C. ccxc. the next U. C. ccc.

[27] vii. 4. 459.
[28] vii. 5. 463.
[29] vii. 20. 512.

entire, it began in the very year of the Foundation and ended in the last year of the reign of Augustus, or in the first year of that of Tiberius. The first and proper grounds then of the Capitoline date can be inferred only conjecturally; from the nature of such a compilation as that of these Fasti, and from the kind of data which would be necessary for it. A series of years, from the Foundation downwards, authenticated by the proper historical criterions throughout, could not have been put together except from original materials, most of them in their own nature of a trustworthy kind: the Consular and Censorian Fasti from public data and documents; the Fasti Triumphales, or accounts of Triumphi acti, from records or testimony as much of a private as of a public character, and preserved in the different families of Rome as well as in the archives of the State.

Indeed on this question of the date of the foundation in general, and of the regular enumeration of the years of the city from the first, next to the Annales Maximi it is not easy to conceive a better authority than these Fasti, were there not room for a possible error of one or two years more or less than the truth, between the Foundation and the expulsion of the kings, or for Consules Pseudeponymi, or for false Triumphi acti, from the date of the Regifuge downwards. A series of years in the æra of the city, (each of them attested and authenticated by a distinct matter of fact peculiar to itself,) which never fails down to the end of the reign of Augustus, would seem to be decisive. As it is, the authority of these Capitoline Fasti appears to have been originally greater than that of the Varronian; and the Capitoline æra and not the Varronian to have been that which received at first the stamp and seal of public sanction. On this point the testimony of Solinus is very important; and therefore we shall quote it[k].

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[k] i. § 27: Solinus' own time appears to have been the first half of the third century of the Christian æra. His work in its present state is a second edition. It is dedicated to one Adventus; probably the same who was consul A. D. 218, and urbis præfectus in the last year of Antoninus or Caracalla. Cf. Dio, lxxviii. 13, 14.

Describing Judæa he observes, xxxv. 4: Judææ caput fuit Hierosolyma, sed excisa est. successit Hierichus; et hæc desivit, Artaxerxis bello subacta. By this Artaxerxes he probably meant the founder of the second Persian empire A.D. 226. If so, he wrote later than the war of Alexander Severus with this Artaxerxes, A. D. 226–229.

Collatis igitur nostris et Græcorum temporibus invenimus incipiente Olympiade septima Romam conditam, anno post Ilium captum quadringentesimo tricesimo tertio. quippe certamen Olympicum, quod Hercules in honorem atavi materni Pelopis ediderat, intermissum Iphitus Eleus instauravit post excidium Trojæ anno quadringentesimo octavo. ergo ab Iphito numeratur Olympias prima. ita sex mediis Olympiadibus interjectis, quibus singulis anni quaterni imputantur, cum septima cœptante Roma condita sit, inter exortum urbis et Trojam captam jure esse annos quadringentos et triginta tres constat: 408 + 25 = 433. And this implies that Rome was founded in the 25th year of the Olympic æra, reckoned from B.C. 776 ex diebus æstivis, *ineunte:* that is, in the 24th *exeunte*, B.C. 752 ex Palilibus.

Solinus continues: Huic argumento illud accedit quod, cum Caius Pompeius Gallus et Quintus Verannius Urbis conditæ anno octingentesimo primo fuerint consules, consulatu eorum Olympias septima et ducentesima actis publicis adnotata est. quater ergo multiplicatis sex et ducentis Olympiadibus, erunt anni octingenti viginti quatuor; quibus de septima Olympiade adnectendus annus primus est, ut in solido colligantur octingenti viginti quinque: ex qua summa detractis viginti annis et quatuor Olympiadum retro sex, manifeste anni octingenti et unus reliqui fient. quapropter cum octingentesimo primo anno Urbis Conditæ ducentesima septima Olympias computetur; par est Romam septimæ Olympiadis anno primo credi conditam.

The consular year of Pompeius and Verannius, both in the Capitoline and in the Varronian reckoning, corresponded to A.D. 49: and A.D. 49 ex diebus æstivis was also the first year of Ol. 207. Consequently it stood exactly 200 Olympic cycles from Ol. vii. 1; which Solinus assumes = U.C. 1. And this seems to have been the reason why he pitched on this particular consular year for the illustration of the Capitoline reckoning of the æra; though there was nothing to distinguish it in any other respect, and it was rather to be expected *a priori* that he would have fixed on U.C. 799 of the Capitoline æra, U.C. 800 of the Varronian, each = A.D. 47: because that was the year in which the secular games of Claudius were celebrated. It is however a just inference from his testimony that the public proceedings of this time must have been kept in the style of the Capitoline not of the Varronian reckoning. Otherwise Ol. 207. 1 must have been found attached to U.C. 802 not to U.C. 801. If so the æra recognized by authority in the reign of Claudius was the Capitoline, not the Varronian.

This consular year, which Solinus thus assumes as U.C. 801, in Varro's Fasti was U.C. 802. It was therefore the Capitoline date of that year, in the æra of the City, not the Varronian. It is certain too that Ol. 207. 1 ex diebus æstivis entered at the middle of this year U.C. 801 ex Kal. Jan. If we reckon back 200 Olympiads from Ol. 207. 1 ex diebus æstivis we come to Ol. vii. 1 ex diebus æstivis; and if 800 years from U.C. 801 ex Kal. Jan. we come to U.C. 1 ex Kal. Jan. But U.C. 1 ex Kal. Jan. or ex Palilibus, under such circumstances, would not begin in Ol. vii. 1 ex diebus æstivis; though Ol. vii. 1 ex diebus æstivis would do so in U.C. 1 ex Palilibus. It is clear therefore that Solinus has not expressed himself in this instance with the necessary exactness. He intended by this reasoning to make out the Capitoline date; but he does in reality make out the Catonian, B.C. 751 ex Palilibus: for that only could come in Ol. vii. 1 ex diebus æstivis.

As to the absolute truth of the date: Solinus seems to have thought it decisive that Ol. 207. 1 and U.C. 801 had been set down in the Acta publica as coincident and connumerary; and yet the very same coincidence and at the very same time must have held good of the corresponding year of the Varronian æra, U.C. 802. Both these years were simply equivalent to A.D. 49; and each of them through that to Ol. 207. 1. The Olympic æra indeed was notoriously older than that of the city in any form; and was confessedly better settled too. It is not surprising therefore to find the latter in a given instance expressed in terms of the former. But the agreement *de facto* of a particular Olympic year, at a given time, with a particular year of the city would prove nothing of the epoch of the æra of the city except in that particular form of the reckoning; unless it was known beforehand that the first year of the æra of the city coincided with such and such a year of the Olympic æra. To return however to the Fasti

Capitolini. Could it only be taken for granted that false consuls, false censors, false triumphs could not possibly have found admission into this compilation; its reckoning would be decisive, at least from the Regifuge downwards. But this cannot be taken for granted. On the contrary names appear in these Fasti of the capitol, which require to be eliminated here, as much as in those which have been compiled on the Varronian platform. And we may probably infer from this fact that the course, which the authors of the compilation prescribed for their proceeding at first, was to lay down the cardinal dates of their system; and then to fill up the intermediate periods in detail, as well as they could, from the data of which they were in possession. On this principle the Capitoline Fasti would have to provide for two years at least more than the truth, as the Varronian had to do for three*.

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* Authors who appear to have adopted the Capitoline date.

i. Velleius Paterculus: Olympiorum initium habuit auctorem Iphitum Elium. is eos ludos mercatumque instituit ante annos quam tu M. Vinici consulatum inires DCCCIV[1]. There is no various reading in this instance, but DCCCC IV; which is evidently a corruption. This consular year of M. Vinicius Quartinus C. Cassius Longinus, to which Velleius purposely refers so many of his dates, corresponded to U.C. 783 of Varro, A.D. 30. If then we simply subtract 30 from 804, we shall get B.C. 774, as Velleius' date of the Olympic æra; two years indeed later than the true date, B.C. 776, but not necessarily in error, (as Velleius' date,) on that account: for he seems to have determined this point for himself, and to have arrived at a conclusion about it, different from the usual one. He continues: Sexta Olympiade, post duos et viginti annos quam prima constituta fuerat, Romulus Martis filius ultus injurias avi Romam urbem Parilibus in Palatio condidit: a quo tempore ad vos consules anni sunt DCCLXXXII. id actum post Trojam captam annis CDXXXVII. The reading of the *editio princeps* in the first of these instances is DCCCCLXXXI: and though that must obviously be corrupt, yet there does not seem to be any reason why it should be corrected by 782 rather than by 781. This latter would give the consular year of Vinicius and Quartinus U.C. 782, the Capitoline not the Varronian date of that year. In like manner, the date of the Olympic æra being B.C. 774 ex diebus æstivis; that of the Foundation, ex Palilibus, 22 years after, must have been B.C. 752, the Capitoline not the Varronian. 437 years before this date would give the date of Troja capta, B.C. 1189; 6 years higher than the date of Eratosthenes, yet very possibly Velleius' date of that event notwithstanding. This conclusion appears to be confirmed by another date in Velleius, that of Augustus' first consulship:

[1] i. 7.

SECTION V.—*On the Catonian date*, B. C. 751 *ex Palilibus.*

The date of Cato the Censor, Ol. vii. 1. B. C. 751 ex Palilibus, stands next to the Capitoline. It has been seen that he proposed it in terms of the interval between the Foundation and the capture of Troy; but it did not appear what date of

Consulatumque iniit Cæsar pridie quam viginti annos impleret x Kal. Octobres, cum collega Q. Pedio, post U. C. annis DCCIX, ante LXXII quam tu M. Vinici consulatum inires[2]. There is a difficulty connected with the month and the day here assigned. But the year was certainly U. C. 711 of Varro, U. C. 710 of the Capitoline reckoning: and that would be very properly expressed by 709 years complete from U. C. 1. This consular year being assumed U. C. 710, that of Vinicius, 72 years later, comes out as before U. C. 782, the Capitoline not the Varronian. Though therefore the numbers in Velleius are often corrupt, and there is little or no assistance *ab extra* for their correction; yet on the whole the date of the foundation which he adopted, and would probably be seen to have followed throughout if his numbers were still everywhere such as proceeded from his own hand, seems to have been the Capitoline rather than the Varronian. He flourished in the reign of Tiberius as the above passages shew; and he wrote before the downfall of Sejanus, A. D. 31[3].

ii. Valerius Maximus: Per quingentos autem et quinquaginta octo annos senatus populo mixtus spectaculo ludorum interfuit. sed hunc morem Atilius Serranus et L. Scribonius Ædiles, ludos Matri Deum facientes, superioris Africani sententiam secuti, discretis senatus et populi locis solverunt: eaque res avertit vulgi animum, et favorem Scipionis magnopere quassavit[4]. The consular year in which this change was made in another passage[5] is specified as that of P. Cornelius Scipio Africanus ii. Tib. Sempronius Longus. Now these were consuls U. C. 560 of Varro. If so, U. C. 559 of Valerius = U. C. 560 of Varro: i. e. he followed the Capitoline reckoning. As the Ludi Matris Deum were celebrated in April (April 4—9 Roman at least) the interval is precisely to be understood; 558 years complete from the Palilia, April 20, U. C. 1 to the Palilia, April 20, U. C. 559. Valerius Maximus too appears to have been writing in the reign of Tiberius[6], just after the downfall of Sejanus. Consequently both he and Velleius must have known of the Capitoline Fasti, if they were set up in the last year of the reign of Augustus, or in the first of Tiberius. They must have known of Varro's date too; and of its claims to consideration: yet that did not prevent their adopting this instead of it.

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[2] ii. 65.

[3] Cf. ii. 116. 127.

[4] ii. iii. 3. De Spectaculis.

[5] iv. v. 1. De Verecundia. Cf. Cicero, Pro C. Cornelio, Fragm. Asconius, p. 99, 100. Livy, xxxiv. 42, 43, 44.

[6] Cf. lib. i. Præf.: v. v. 3. De Benevolentia Fraterna: ix. xi. Externa, 4. De impie dictis et factis.

the capture he adopted; or what time of the year as the season of that event; or whether the 432d year, so reckoned,

iii. Solinus. There are other dates in Solinus, in the æra of the city; which are the Capitoline, not the Varronian.

The first Punic war[7]	U. C. 489 = 490	of Varro.
second	U. C. 535 = 536	..
third	U. C. 604 = 605	..
The Bellum Sociale	U. C. 662 = 663	..
The consular year of Hirtius and Pansa[8]	U. C. 710 = 711	

He dates the death of Homer 272 years Post Ilium captum[9]; and the Foundation 160 years after the death of Homer. His date of Troja Capta is Apollodorus', B. C. 1184. This gives the death of Homer B. C. 1184 − 272 = B. C. 912: and the Foundation B. C. 712 − 160 = B. C. 752, the Capitoline epoch of the event.

iv. Aurelius Victor: De Claudio: Hujus anno sexto, cum quatuordecim regnarit, octingentesimus urbis mire celebratus. The sixth of Claudius must have begun Jan. 24 A. D. 46, U. C. 799 of Varro. His secular games were actually celebrated A. D. 47, U. C. 800 of Varro. Victor's mistake might have been produced by some confusion between the Capitoline date of the games, U. C. 799, and the Varronian, U. C. 800.

That he followed the Capitoline æra of the city may be inferred from his reckoning the consular year of Philippus, in his own time, U. C. 1100. De Philippis, the two emperors, the father and the son of that name, he observes, Annum urbis millesimum ludis omnium generum celebrant: and then: Et quoniam nomen admonuit, nostra quoque ætate post mille centesimus consule Philippo excessit. The Fasti, adapted to Varro's epoch, have Fl. Philippus and Fl. Salia U. C. 1101. Victor's year of the same denomination was 1100—one year lower. Consequently the Capitoline.

v. Macrobius. The triumph of Scipio, *deleta Carthagine*, is dated U. C. 607[10]. Its Varronian date was U. C. 608. In like manner, U. C. 264[11] = U. C. 265 of Varro; as appears from Dionysius and Livy[12], and the names of the consuls for the time being: and the consular year of Manius, (i. e. Manius Acilius Glabrio,) is reckoned U. C. 562[13], though in the Varronian reckoning it was U. C. 563. And this date in particular seems to have been taken from the Fasti of Fulvius Nobilior, set up in æde Herculis[14], and digested very much in the manner of the Fasti Capitolini themselves. If so, Fulvius' date must have agreed with the Capitoline; and possibly even the Capitoline Fasti might have been founded ultimately was current or complete: it appeared only that Dionysius understood him to have followed Eratosthenes' date of the capture, B. C. 1183, and to have reckoned from the summer solstice; and consequently to have made 432 years complete between midsummer B. C. 1183 and the Palilia B. C. 751[l].

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[7] i. § 31. [8] i. § 32. [9] xl. § 16.

[10] Somnium Scip. ii. xi. p. 162, 163 Biponti.

[11] Saturnalia, i. xi. 244, 245.

[12] Dionysius, vii. 68: viii. 1: Livy, ii. 36, 37. 39.

[13] Saturn. i. xiii. 267.

[14] i. xii. 258. Cf. Cicero, Oratio xxvi, Pro Archia, ii. Servius, ad Æn. i. 8. Panegyrici vett. iv.: Eumenius, Pro Instaurandis Scholis, vii. 3. Fragmenta Historicorum Rom. apud Sall. ii. 325: L. Cælius Antipater: Ex Carisio.

Admitting that this construction of his date in all probability was correct; still we may observe that it throws no light on the grounds of the date itself, or on the manner in which it was obtained: in particular whether Cato made out his 432 years by reckoning from the Foundation upwards to the capture, or from the capture downwards to the Foundation; the former of which modes of proceeding would imply the date of the foundation to have been the better known of the two, the latter the date of the capture. And yet it would seem to have been the most natural course that Cato should have begun with determining the date of the foundation; and from that, if he thought proper, should have ascended to the date of the capture. A Roman, and one so much nearer to one of these events than to the other, would be much more likely to be interested in the date of the foundation of Rome, than in that of the capture of Troy; and much more competent to settle the former than the latter. Dionysius it is true reverses this process; and makes out these 432 years *seriatim* from the capture of Troy to the Foundation downwards[m]: but whether, when taking that course, he was treading in the steps of Cato or not, no one at present could venture to say.

The difference between the Catonian date, B. C. 751, the Capitoline, B. C. 752, and the Polybian, B. C. 750, is very slight; and might be conjecturally accounted for in various ways. The true date is Polybius'; yet Cato's is only one year higher. In point of antiquity and so far in point of authority one is nearly on a par with the other; for Cato

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on those of Fulvius. From what Suetonius mentions in his life of Claudius[15], the most probable time when the authors of them, whosoever they were, set about their compilation, might be supposed to have been a little before U. C. 737, when Augustus was preparing to celebrate the secular games.

[15] xxi. 3.

[l] Cf. Lydus, De Magistratibus, Lib. i. cap. 1. p. 122.

[m] i. 45-71.

and Polybius were contemporaries, as far as an old man at least, and a man in the prime of life, or of confirmed age, could be said to have been so*.

The principal recommendation of this date, next to the authority which it derives from the name of Cato, is the fact of its having been adopted by Dionysius of Halicarnassus, by Livy, and by Eusebius[n]. Dionysius states it more than once in terms[o]. And yet it is doubtful whether, even according to his own calculations, he ought not rather to have adopted the Capitoline date of B. C. 752 ex Palilibus. The same kind of objection at least seems to apply to him which we saw to be applicable to Solinus; that his mode of reasoning makes out the Capitoline date of B. C. 752 ex Palilibus, rather than the Catonian of B. C. 751 ex Palilibus.

He fixes the date of the capture of the city by the Gauls[p] to Ol. 98. 1. in the Archontic year of Pyrgio (whom others call Pyrrhio) B. C. 388–387; and, on the authority of the Tabulæ Censoriæ, he fixes that of the Regifuge, (exactly 120 years before,) to Ol. 68. 1. in the Archontic year of Isagoras,

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* The year of the death of Cato was U. C. 605 of Varro, B. C. 149; and nearer to the end of that year than the beginning: and he was then 85 or 86 years of age. We may have occasion to consider the chronology of his life, and of some of his works, hereafter. Polybius left an account of the war of Numantia, distinct from the rest of his histories[1]; and that was not over before B. C. 132, in which year the younger Scipio celebrated his triumph De Numantinis. Polybius therefore survived the death of Cato 17 years at least. He died himself at 82 years of age, in consequence of a fall from his horse[2].

Cato's Roman chronology was no doubt contained in his Origines; and these consisted of vii books, and were written late in his life. The viith book appears to have come down to the last year of his life itself. The title of this work was general and comprehensive, as if it embraced the origin and earliest accounts of all the nations of Italy as much as of the Romans: yet in reality it was more an history of the Roman people than any thing else. Originum libros quod inscripsit Cato non satis plenum titulum propositi sui videtur amplexus; quando prægravant ea quæ sunt rerum gestarum populi Romani: Festus, xiii. 314. 10: Originum.

[1] Cicero, ad Fam. v. 12.

[2] Cf. Pausanias, viii. xxx. 4: xxxvii. 1. Plutarch, Philopœmen, xxi. Lucian, Macrobii, cap. 22: iii. 225. Hemsterhusii.

[n] Chron. Arm. Lat. P. i. 283. 360. 374. 392. 394. 396: ii. 175. Ol. vii. 1. Cf. Syncellus, 361. 10. 365. 1–8. 367. 9. 14.

[o] i. 71. 74, 75: ii. 2.

[p] i. 74: cf. v. 1.

B. C. 508–507: and this is so far consistent; for the interval, in terms of the Olympic æra, from one of these dates to the other, was 30 Olympic cycles. The sum total of years from the Foundation to the Regifuge, (the sum total of the reigns of the kings,) he makes exactly 61 Olympic cycles, 244 years[q]; and 61 Olympiads being subtracted from Ol. 68. 1. the date of the foundation in the Olympic æra comes out Ol. vii. 1: but 244 years reckoned back from B. C. 508 at a given time bring you to B. C. 752 at the same time; and that would not correspond to Ol. vii. 1. but to Ol. vi. 4. especially if dated ex Palilibus.

Dionysius is generally a very exact writer, and particularly attentive to his chronology. But the inequality of the æra of the city and of the Olympic æra, one to the other, does not appear to have been always kept in mind by the ancients; though a given year in either of those æras, reckoned according to its proper rule, must necessarily have corresponded at once to an higher and a lower one in the other, similarly reckoned also. It may be said indeed in excuse of Dionysius that he dated the Regifuge in the Julian month of February, B. C. 507; that is, Ol. 68. 1 exeunte: from which 61 cycles or 244 years exactly would certainly bring us to Ol. vii. 1 exeunte, B. C. 751 ex Palilibus, the Catonian date. But if the true year of the expulsion was B. C. 508, and the true month the month of June, (as we believe to have been the case,) then Dionysius' mode of reasoning could make out nothing but the Capitoline date of the foundation, B. C. 752 ex Palilibus.

His consular years indeed, compared with those of Varro, generally range two numbers lower[r], as those of the Catonian æra, compared with the Varronian, ought to do. In one instance however[s], speaking of the appointment of the first body of Decemvirs, he makes Ol. 82. 1. Chærephanes (B. C. 452) = U. C. 301: Ἐτῶν τριακοσίων ἐκπεπληρωμένων ἀπὸ τοῦ Ῥώμης συνοικισμοῦ. The consuls of this year, recognised by him, are P. Horatius Sex. Quinctilius; and these, as we hope to shew hereafter, were the proper representatives of U. C. 302 of Varro, B. C. 452. In this instance therefore U. C. 301 of Dionysius = U. C. 302 of Varro; and that would be the proportion of a given year in the Capitoline æra to the corresponding year in the Varronian. And 300 years exactly from B. C. 452 take us back to B. C. 752, not to B. C. 751[*].

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[q] i. 75: v. 1. [r] i. 3: ii. 11: 25. 27. [s] x. 53.

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[*] The following authors adopt the Catonian date of the Foundation; must be supposed at least to have done so, though their actual numbers in every instance may not be consistent with it.

i. Livy, iii. 33: Anno trecentesimo altero quam condita Roma erat iterum mutatur forma civitatis ab Consulibus ad Decemviros: i. e. U. C. 302. The actual date of the ingress of this first body into office was the Ides of May, B. C. 450: and that being assumed = U. C. 302 ex Palilibus, it gives U. C. 1 B. C. 751 ex Palilibus, the Catonian date. iv. 7: Anno trecentesimo decimo quam urbs Roma condita erat primum tribuni militum pro consulibus magistratum ineunt: i. e. U. C. 310. The Varronian date of this appointment was U. C. 310 B. C. 444 also: so that Livy's date in this instance is two years too high in the æra of the city to be the Catonian. The true year was B. C. 443: and even that would give the Capitoline date, B. C. 752 ex Palilibus. v. 40: The age of the city at the time when it was taken by the Gauls is put at 360 years; probably only in round numbers: cf. v. 45. The true date of the capture was B. C. 389; and if that was actually = U. C. 360 ex Palilibus, U. C. 1 must have been B. C. 748 ex Palilibus. v. 54: The year after the capture is supposed to be U. C. 365. If that was = B. C. 388 ex Pal. U. C. 1 must have = B. C. 752 ex Palilibus, the Capitoline date. vii. 18: Quadringentesimo anno quam urbs Roma condita erat quinto tricesimo quam a Gallis reciperata, ablato post undecimum annum a plebe consulatu, patricii consules ambo ex interregno magistratum iniere. This was U. C. 399 of Varro, B. C. 355. The true year was U. C. 400 of Varro, B. C. 354: so that Livy's date in this instance is simply the Varronian. B. C. 354 + 34 gives B. C. 388 for the recovery of the city from the Gauls; which is correct: and B. C. 354 + 11 would give B. C. 365, the true date of the first plebeian consulate. xxxi. 1: Quadringenti octoginta octo anni a condita urbe ad Appium Claudium consulem, qui primus bellum Carthaginiensibus intulit. The date of the first Punic war was B. C. 264: and B. C. 264 + 408 gives the Capitoline date, B. C. 752; B. C. 264 + 407, the Catonian, B. C. 751. xxxi. 5: Anno quingentesimo ab urbe condita, P. Sulpicio Galba C. Aurelio consulibus, bellum cum rege Philippo initum est: U. C. 554 of Varro B. C. 200. In this instance consequently there is an omission in the text of Livy of 52 years. xxxiv. 54: Ad quingentesimum quinquagesimum octavum annum in promiscuo spectatum esse—i. e. down to the consular year of Scipio and Sempronius, U. C. 560 of Varro. This date therefore is the Catonian, two years lower than the Varronian. The year was B. C. 194: and B. C. 194 ex Palilibus + 557 = B. C. 751 ex Palilibus.

Epitome: xlvii: Consules anno quingentesimo nonagesimo octavo ab urbe condita magistratum, peractis comitiis insequentisque anni consuli-

SECTION VI.—*On the date of Polybius*, B. C. 750 *ex Palilibus.*

The last date, which requires to be considered, is Polybius', Ol. vii. 2, B. C. 750 ex Palilibus. That part of Polybius'

bus creatis, (Kal. Jan.) inire cœperunt. mutandi comitia caussa fuit quod Hispani rebellabant. The Varronian date of this first ingress on the Kalends of January was U. C. 601 B. C. 153: but the comitia would be held U. C. 600 B. C. 154: and this must be the year meant by the Epitome, U. C. 588 = U. C. 600 of Varro. Consequently the Catonian which corresponded in that year to the Varronian. Lib. xlix: Tertii Punici belli initium altero et sexcentesimo anno ab urbe condita. The Varronian date was U. C. 605; referred to which U. C. 602 would be the Polybian, not the Catonian. In like manner, lib. xlvi, the date of the secular games, celebrated in the first Punic war, U. C. 505 of Varro, B. C. 249, is reckoned U. C. 502: and that also is the Polybian date of B. C. 249 in the æra of the city.

ii. Frontinus: In the work De Aquæductis certain pairs of consuls are connected with the years of the city, as follows:

M. Valerius Maximus P. Decius Mus[1]	U. C. 441 = U. C. 442 Varro
L. Papirius ii Sp. Carvilius[2]	U. C. 481 = U. C. 482 Varro
Servius Sulpicius Galba L. Aurelius Cotta[3]	U. C. 481 + 127 = 608 = 610
Appius Claudius Q. Cæcilius[3]	U. C. 609 = U. C. 611
C. Lælius Q. Servilius[3]	U. C. 612 = U. C. 614
M. Plautius Hypsæus M. Fulvius Flaccus[4]	U. C. 627 = U. C. 629
C. Julius Cæsar Octavianus ii. L. Volcatius[5]	U. C. 719 = U. C. 721
M. Aquillius Julianus P. Nonius Asprenas[6]	U. C. 789 = U. C. 791
Sylla Titianus[6]	U. C. 803 = U. C. 805.

In the two first of these instances Frontinus' numbers are one year behind the Varronian; in the rest they are two. We may infer then that history, which contained the exposition of his proper chronological system, is lost: yet he seems to have considered it

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[1] Pag. 159, 4, 5. *Biponti.*

[2] 160, 6.

[3] 160, 7. 161.

[4] 162, 8.

[5] 162, 9: Cf. 193, 98: the Fasti Romani of Mr. Clinton, B. C. 33.

[6] 164, 165.

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his date of the æra of the city was the Catonian, more probably than the Capitoline. He flourished under Trajan. Vegetius[7]: Idem fecerunt alii complures: sed præcipue Frontinus, divo Trajano ab ejusmodi comprobatus industria. He was appointed Curator aquæ publicæ by Nerva, U. C. 850 Varr. A. D. 97.

iii. Theophilus ad Autolycum: Ἐκτότε ἤδη Ῥωμαῖοι ἐμεγαλύνοντο,.... ἐκτισμένης τῆς Ῥώμης ὑπὸ Ῥωμύλου....Ὀλυμπιάδι ζʹ, τῇ πρὸ ιʹ καὶ αʹ καλανδῶν Μαΐων[8].

.... Τοῦ οὖν Κύρου τελευτήσαντος ὡς ἔφθημεν εἰρηκότες[9] Ὀλυμπιάδι ἑξηκοστῇ καὶ δευτέρᾳ, γίνεται καιρὸς ἀπὸ κτίσεως Ῥώμης ἔτη σκʹ. ᾧ καιρῷ Ῥωμαίων ἦρξε Ταρκύνιος Σούπερβος ὄνομα[10] κ̓,τ.λ. ὃς ἐβασίλευσεν ἔτεσιν κεʹ. μεθ' ὃν ἦρξαν ἐνιαύσιοι ὕπατοι, χιλίαρχοι, ἢ ἀγορανόμοι, ἔτεσιν υνγʹ (453), ὧν τὰ ὀνόματα καταλέγειν πολὺ καὶ περισσὸν ἡγούμεθα. εἰ γάρ τις βούλεται μαθεῖν, ἐκ τῶν ἀναγραφῶν εὑρήσει ὧν ἀνέγραψε Χρύσερως ὁ νομεγκλάτωρ, ἀπελεύθερος γενόμενος Μ. Αὐρηλίου Οὐήρου· ὃς ἀπὸ κτίσεως Ῥώμης μέχρι τελευτῆς τοῦ ἰδίου πάτρωνος αὐτοκράτορος Οὐήρου σαφῶς πάντα ἀνέγραψε καὶ τὰ ὀνόματα καὶ τοὺς χρόνους. ἐκράτησαν οὖν Ῥωμαῖοι ἐνιαύσιοι ὥς φαμεν ἔτεσιν υνγʹ. ἔπειτα οὕτως ἦρξαν οἱ αὐτοκράτορες καλούμενοι. The reigns follow, from that of Julius Cæsar to that of Verus, 237 years 5 days in all[11]. Ἀπὸ οὖν τῆς Κύρου τελευτῆς Ῥωμαίων δὲ ἀρχῆς Ταρκυνίου Σουπέρβου μέχρι τελευτῆς αὐτοκράτορος Οὐήρου οὗ προειρήκαμεν ὁ πᾶς χρόνος συνάγεται ἔτη ψμδʹ (744. corr. ψιδʹ 714.)[11]—Ἀπὸ δὲ τῆς Κύρου ἀρχῆς μέχρις αὐτοκράτορος Αὐρηλίου Οὐήρου τελευτῆς ἔτη ψμδʹ[12]: i. e. 30 years more than from his death; which confirms the correction in the other instance.

Spartian, in his life of Ælius Verus, observes[13], Nam ipsi sunt (M. Aurelius et L. Verus) qui primi *duo Augusti* appellati sunt;.... tantumque hujusce rei et novitas et dignitas valuit, ut Fasti consulares nonnulli ab his sumerent ordinem consulum[14]: and this throws some light on the probable origin of that scheme of the years of the city and of the Fasti, brought down from the Foundation to the end of the reign of Marcus Aurelius, which Theophilus here attributes to Chryseros his freedman. It happened too that the years of this joint reign and those of the city ex Palilibus were nearly synchronous; the former bearing date March 7 the latter April 21. The last year of M. Aurelius itself expired March 17 A. D. 180.

In the preceding statements, the date of the Foundation, April 21, Ol. vii, must be understood of Ol. vii. 1 exeunte, B. C. 751 ex Pal. consequently of the Catonian date. 55 Olympiads, or 220 years complete, from that bring you to Olympiad lxii. 1 ex. B. C. 531: which, on this

[7] ii. 3: cf. De Aquæductis 157, 1: 178, 64: 189, 88: 191, 93: 196, 102.

[8] iii. 26. 380. 382.

[9] iii. 26.

[10] Cf. Lactantius, iv. 5.

[11] iii. 27.

[12] iii. 28.

[13] Historiæ Aug. SS. Ælius Verus, 5.

[14] Cf. Pertinax, 12.

of sufficient importance to be made the subject of an entire book, the last of the series, the 40th in order. So at least

principle, must have been Theophilus' date of the death of Cyrus: and therefore Olymp. liv. 3. exeunte, 30 years before, B.C. 561, must have been that of his accession. It must also have been his date of the accession of Tarquinius Superbus: 24 years from which bring us to B.C. 507 as the date of his expulsion, in the 25th year of his reign. And this is also Dionysius' date of the expulsion.

The other numbers are corrupt. For 453 we should read 459 (*υνθʹ* not *υνγʹ*): which being subtracted from B.C. 507 give B.C. 48, as the first year of Julius Cæsar. For 237 we should read 227; and 227 − 47 bring us from B.C. 48 to A.D. 180, the date of the death of Marcus Aurelius. For 714 we should read 710, and for 744, 740: the former of which would go back from A.D. 180 to B.C. 531, and the latter to B.C. 561. These dates however prove that Theophilus' epoch of the æra of the city, and no doubt that of Chryseros also, was the Catonian, B.C. 751 ex Palilibus.

iv. Clemens Alexandrinus: *Πάλιν ἀπὸ τῆς πρώτης Ὀλυμπιάδος ἔνιοί φασιν ἐπὶ Ῥώμης κτίσιν συνάγεσθαι ἔτη εἴκοσι τέσσαρα*[15]—i.e. from Ol. i. 1 ex Palilibus, B.C. 775: which gives the Catonian epoch, B.C. 775 − 24, B.C. 751 ex Palilibus.—*Συνάγεται δὲ πάντα τὰ ἀπὸ Ῥωμύλου τοῦ κτίσαντος Ρώμην ἕως Κομόδου τελευτῆς ἔτη ϡνγʹ μῆνες ϛʹ*[16]: i.e. 953 years, 6 months. The Varronian date of the death of Commodus was Dec. 31 Roman U.C. 945. If then we may read 943 in the text of Clemens, instead of 953, and 9 months instead of 6 months, (though this last correction is by no means indispensable,) his statement will hold good in the Catonian reckoning of the æra from the Foundation to the death of Commodus.

v. Eusebius, as we have observed, adopts this date himself, while he mentions others. Ol. vii. 1. Romulus Romam condidit[17]—Romulus Romam condit regnatque septima Olympiade[18]—Equidem erant a septima Olympiade Romaque condita anni CCXLIV. (usque ad mortem (fugam) Tarquinii[19]—Urbis conditæ annus primus: ad Ol. vii. 1. ann. Abrah. 1264[20]: 24 years later than ann. Abrah. 1240 Ol. i. 1. The Varronian date was probably intended Ol. vi. 3. ann. Abrah. 1262: Romam nonnulli Romanorum conditam aiunt: though as the text stands it seems to be the Capitoline, Ol. vi. 4. ann. Abrah. 1263, B.C. 752.

Eusebius' date is adopted by Jerome: ad ann. 1265 Ol. vii. 1: Romæ Palilibus qui nunc dies festus est Remus rastro pastorali a Fabio Romuli duce occisus est[21]. And yet the sum of years *ab Urbe condita* to the close of his Chronicon (A.D. 378 the last year of Valens, and the date of the battle of Adrianople August 8 that year), as his text stands at present, seems to be 1131, the Varronian date, in the æra of the city, which answered to A.D. 378.

[15] Strom. i. xxi. § 138. p. 93. l. 4. *Lipsiæ*, 1831.

[16] Strom. i. xxi. § 144. p. 97.

[17] Chron. Arm. Lat. i. 283.

[18] Chron. Arm. Lat. i. 392.

[19] Chron. Arm. Lat. i. 396.

[20] Chron. Arm. Lat. ii. 175.

[21] Thes. Temporum, p. 116.

may it be inferred from the concluding fragment of the 39th book lately recovered: *Τούτων δὴ πάντων ἡμῖν ἐπιτετελεσμένων, λείπεται διασαφῆσαι τοὺς χρόνους τοὺς περιειλημμένους ὑπὸ τῆς ἱστορίας, καὶ τὸ πλῆθος τῶν βίβλων καὶ ἀριθμὸν τῆς ὅλης πραγματείας**. It might be supposed indeed from v. 111. that the proper place, for his Roman chronology, and for such questions as that of the date of the Foundation and of the origin of the Roman people, must have been the vith book, devoted to the subject of the Roman *πολιτεία*, the constitution and laws of the Roman republic. But that book too has been in a great measure lost.

Dionysius however throws some light on the grounds of his date, even while he appears to call in question their sufficiency[t]: *Οὐ γὰρ ἠξίουν ὡς Πολύβιος ὁ Μεγαλοπολίτης τοσοῦτον μόνον εἰπεῖν ὅτι κατὰ τὸ δεύτερον ἔτος τῆς ἑβδόμης Ὀλυμπιάδος τὴν Ῥώμην ἐκτίσθαι πείθομαι· οὐδ᾽ ἐπὶ τοῦ παρὰ τοῖς Ἀγχισεῦσι κειμένου πίνακος ἑνὸς καὶ μόνου τὴν πίστιν ἀβασάνιστον ἀπολιπεῖν· ἀλλὰ τοὺς ἐπιλογισμοὺς οὓς αὐτὸς προεθέμην* (lege *οἷς αὐτὸς προσεθέμην*) *εἰς μέσον, ὑπευθύνους τοῖς βουληθεῖσιν ἐσομένους, ἐξενεγκεῖν.* We collect from this observation that Dionysius found fault with Polybius' mode of stating the conclusion at which he had arrived on this question, rather than with the conclusion itself, or with the grounds on which it was based. It was not sufficiently explicit; it was not circumstantial and particular enough to satisfy Dionysius. True it is, he speaks only of *one* document, to which Polybius appeared to have appealed; but even *one* authentic testimony is competent to establish a particular matter of fact: and if this *πίναξ*, referred to by Polybius, was but an ancient and genuine monument of its kind, it might be sufficient to decide even such a question as that of the Foundation, and to justify Polybius in relying upon it exclusively †. Otherwise Dionysius himself would lie open to the same censure which he seems to have thus passed on Polybius. His own date of the Foundation, after all, rested mainly, if not entirely, on the testimony of one document, or of one class of

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* Excerpta Vaticana, Polybius, Altonæ, 1830: edited by John Frederick Lucht.

† This allusion of Dionysius to some tablet or other, Παρὰ τοῖς Ἀγχισεῦσι, has always been considered obscure. Some of the learned have suspected the soundness of the text: and it has been proposed to correct it by reading Παρὰ τοῖς ἀρχιερεῦσι, for Παρὰ τοῖς Ἀγχισεῦσι. It would be sufficient

[t] i. 74.

to object to this correction that it is purely conjectural; that there are no critical grounds for it: i. e. no authority from MSS. But it would be further objectionable because on that principle it must be supposed that Dionysius was alluding to the Tabulæ kept by the Pontifices Maximi; in which they made those entries, which composed the Annales Maximi. And yet he speaks of one table only; Πίνακος ἑνὸς καὶ μόνου. The Tables of the Annales Maximi were a collection of tables. There was a distinct table for every year. Such a collection could never be alluded to as Πίναξ εἷς καὶ μόνος: or as the *table* absolutely, not the *tables*. Dionysius himself observes on one occasion: Παλαιὸς μὲν οὖν οὔτε συγγραφεὺς οὔτε λογογράφος ἐστὶ Ῥωμαίων οὐδὲ εἷς· ἐκ παλαιῶν μέντοι λόγων ἐν ἱεραῖς δέλτοις σωζομένων ἕκαστός τις παραλαβὼν ἀνέγραψε[1]. Ἐν ἱεραῖς δέλτοις. Such were those in which the pontiffs made their entries in particular. They were a collection of Tables; and not merely one individual Table: and no author, who paid the least attention to propriety, would speak of them except as of a collection.

The fact is, Dionysius mentions a port in Epirus near Buthrotus[2], which he says was called Ἀγχίσου λίμην*: and, though that was not in Italy, yet it proves that there were cities or localities in ancient times which had the name of Anchises given them from some connection real or supposed with Anchises the father of Æneas; with the family of Æneas; or with the wanderings of Æneas. Sciendum sane, says Servius[3], Varronem dicere Diomedem eruta Anchisæ ossa filio reddidisse: Catonem autem adfirmare quod Anchises ad Italiam venerit. Cato had doubtless some authority for that statement; and there would be such authority if there was a city in Italy, known to him, called by the name of Anchise. Lycophron alludes to the Ἀγχαῖσοι[4].

Ὅταν Σαλάγγων γαῖαν Ἀγχαίσων θ' ἕδη
μολόντες—

And by each of these names Tzetzes understood him to mean a people of Italy: Σάλαγγοι καὶ Ἄγχαισοι ἔθνη Ἰταλίας.

But it is most important to observe that Dionysius himself speaks of a city[5] founded if not by Ascanius the son of Æneas, yet by Romus a supposed brother of Ascanius, along with Capua; and called Ἀγχίση after Anchises his grandfather, as Capua was after Capys his great-grandfather (πρόπαππος[6]). The nomen gentile derivable from Ἀγχίση would be Ἀγχισεύς; so that Dionysius' Ἀγχισεῖς were the δῆμος or people of this documents, the Tabulæ Censoriæ, still preserved at Rome and still accessible in his own time.

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[1] i. 73.

[2] i. 51.

* Casaubon indeed in this instance would read Ὀγχήσμου, yet without sufficient authority; though there was such a port as that of Ὄγχησμος also. Cf. Strabo, vii. 7. and Cicero, ad Atticum, vii. 2. Ptolemy, Geographia, iii. 14. § 2.

[3] Ad Æn. iv. 427.

[4] Ver. 1058.

[5] i. 73.

[6] i. 62.

It is not indeed credible that so inquisitive and so diligent and exact a writer as Polybius would assume a fundamental and cardinal date in Roman history without satisfying himself beforehand of its truth. In Cicero's dialogue De Republica the date of the Foundation was spoken of as a point Græcorum annalibus *investigatum*, i. e. sifted and explored. And that by these Greeks in general he meant Polybius in particular may be inferred from the other observation which he puts into the mouth of Scipio: Sequamur enim Polybium nostrum, quo nemo fuit in exquirendis temporibus diligentior. This Scipio was Scipio the younger; and Polybius, it is well known, was his διδάσκαλος, and his most familiar friend ever after. The above testimony to his chronological exactness expresses Cicero's opinion on that point, not Scipio's: and sufficiently explains why Cicero himself should have deliberately adopted his conclusion for the date of the Foundation, until his natural prejudice in favour of a contemporary, a countryman, a personal friend, like Varro, (whose learning too and profound knowledge of antiquity could not be disputed,) and possibly even his deference to the astrology of antiquity, induced him to adopt the date of Varro.

For our own part, we are entirely of opinion that the highest degree of deference would be due to any well-attested judgment of Polybius', deliberately expressed; whether the reasons of it were made known also or not: merely out of regard to his own character and to his own authority. With respect to questions of Roman history in particular; he had

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Ἀγχίση: and the πίναξ or tablet in question was some ancient document in their possession, which Polybius had seen.

It is no objection that this Anchise in Italy is mentioned by no one else, if it was mentioned by Polybius and by Dionysius. Stephanus Byz. gives it admission into the list of cities which had a real existence either in his time or before his time, on the authority of Dionysius[7]: Ἀγχίση, πόλις Ἰταλίας ἀπὸ τοῦ προπάτορος Ἀγχίσου, ὡς Διονύσιος ἐν πρώτῃ περὶ Ῥωμαϊκῆς Ἀρχαιολογίας. τὸ ἐθνικὸν Ἀγχισεύς. And this virtually recognises the received reading of the text of Dionysius in the present instance, Παρὰ τοῖς Ἀγχισεῦσι, not Παρὰ τοῖς ἀρχιερεῦσι.

[7] Ἀγχίση.

every inducement to make him labour to inform himself as accurately as possible. Roman history to a reflecting and inquisitive Greek of his time could not be matter of indifference; for though the Greeks his countrymen were not yet every where in his time absolutely subject to and absolutely dependent on the Romans, the period was fast approaching when they must infallibly become so: and Polybius' own works demonstrate that he already foresaw and expected such a consummation. His natural desire of knowledge and love of truth would not allow him to rest satisfied with superficial and scanty information on any question of importance, if more perfect and complete was to be had by inquiring after it. His great and various erudition in general, and his thorough acquaintance with the antiquities of his own country, qualified him peculiarly for similar investigations in Roman history. Nor could he want the best opportunities; not only from the nature of the times in which he happened to live, which were not those of ignorance even among the Romans, but from his personal knowledge of and personal acquaintance with the best informed as well as the noblest and greatest of the Romans themselves. We may rest assured that whatsoever at Rome or within the Roman dominions, whether of a public or of a private kind, was calculated to assist him in his inquiries, would be accessible to him, and would be consulted by him. And as his natural good sense was not inferior to that of any historian of antiquity; and no one was ever more indefatigable; and few have equalled him in the philosophical turn of his mind, in the faculty of discrimination, and in the particular talent of judging of evidence and of eliciting truth from conflicting testimony; we could not desire a better authority than Polybius' on any point of ancient history, which he was known to have expressly investigated, and about which his deliberate judgment had been recorded.

It adds materially to the *a priori* probability of the truth of this date of Polybius that it differs so little either from that of Cato or from that of the Annales Maximi. The Catonian date is well ascertained. It can be neither earlier nor later than B. C. 751. There can be only one year's difference at the utmost between that and Polybius'. And what is a single year, in a case like this? or who shall say that such a difference was not accidental, and would not appear to be so, if the grounds of Cato's date, and the steps of the process by which he arrived at it, had been circumstantially handed down in his own Origines? The Catonian date then and the Polybian may be after all the same. And with respect to that of the Annales Maximi, we know it as far as we have yet proceeded only from the testimony of Cicero's eclipse; and that testimony does not appear to fix it to B.C. 749 more necessarily than to B.C. 750: and even if it was truly B.C. 749, it might have been only accidentally determined to that year, instead of to B.C. 750. It is possible therefore that this particular date of B.C. 750 may have had the attestation and sanction of the Annales Maximi from the very origin of the city; of Cato, the most learned of native Roman historians of his own or of any time; of Polybius, the best informed and most competent judge of Roman antiquity among the Greeks. And we have seen that it had at first the deliberate preference of Cicero. This is a concurrence of probabilities in favour of one date in particular, which would almost justify us in pronouncing concerning it beforehand, that this only can be the truth; this at least is the most likely of all to turn out at last to be the truth *.

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* Among the authors who appear to have adopted the Polybian date, whether taken from Polybius or not, we may mention the following.

i. Cn. Gellius and Cassius Hemina. Macrobius[1]: Horum caussam Gellius Annalium libro quintodecimo et Cassius Hemina Historiarum libro secundo referunt. Anno ab urbe condita trecentesimo sexagesimo tertio a tribunis militum Virginio, Manlio, Æmilio, Postumio, conlegisque eorum, in senatu tractatum quid esset propter quod toties intra paucos annos male esset adflicta respublica: et ex præcepto patrum L. Aquinium haruspicem, in senatum venire jussum religionum requirendarum gratia, dixisse Q. Sulpicium tribunum militum ad Alliam adversus Gallos pugnaturum rem divinam dimicandi gratia fecisse postridie idus Quinctiles. The year of this deliberation in the Varronian reckoning was U.C. 366 B.C. 388[2]; and we hope to shew hereafter that it was truly B.C. 388: i.e. that the military tribunes to whom this motion is attributed did truly enter office on the Ides of Quinctilis B.C. 388. If this year then was reckoned by Gellius and Hemina U.C. 363 ex Pali-

[1] Saturn. i. 16. 280: cf. A. Gellius, v. 17.

[2] Cf. Livy, vi. 1.

SECTION VII.—*General conclusion from the above premises.*

Though however the result of the preceding comparison of the extant testimonies to the date of the Foundation should

libus; B. C. 750 ex Palilibus must have been reckoned U. C. 1. And that is the Polybian date.

This reasoning indeed is not absolutely conclusive; because we do not know whether there might not be omissions in the previous reckoning of consular years by each of these historians, which might make a difference of three years between their reckoning and the Varronian B. C. 388. And yet it does not appear that Gellius took his date of this year from Hemina, or Hemina his from Gellius. And that both should be found agreeing to date this particular year U. C. 363, yet each independently of the other, is a strong argument that each must actually have made B. C. 388 = U. C. 363.

There is another date on record from Gellius in particular, much later than this; between which and the corresponding Varronian date there is the same difference of three years also. The Lex Orchia, according to Macrobius[3], was passed Tertio anno quam Cato censor fuerat. Cato was censor U. C. 570 of Varro. Therefore this law was past U. C. 573 of Varro. Post annum vicesimum secundum legis Orchiæ Fannia lex lata est, anno post Romam conditam secundum Gellii opinionem quingentesimo nonagesimo secundo: and yet U. C. 595 of Varro[4]. Gellius' æra then was three years lower than the Varronian. If so it must have been the Polybian.

The historian Gellius is styled Cneus by Censorinus[5]. Cicero seems to place him, in point of antiquity, next to Fabius[6]. He was living U. C. 608 of Varro[5] B. C. 146, and therefore contemporary with Cassius Hemina also[5], whom Pliny styles Vetustissimus auctor[7], and to whom he there refers for the fact of the discovery of the Libri Numæ in the consular year of Cornelius Cethegus and Bæbius Tamphilus, (U. C. 573 of Varro, B. C. 181). According to Ausonius Popma *his* prænomen was Lucius: Lucius Cassius Hemina.

ii. Luctatius and Cornelius Nepos. Solinus[8]: Nepoti et Lutatio, opinionem Eratosthenis et Apollodori comprobantibus, Olympiadis septimæ anno secundo (Romam placet conditam.) Eratosthenes and Apollodorus are here referred to for the epoch of the Olympic æra, not for the date of the Foundation in terms of that æra. As both made it B. C. 776 ex die-not appear to be such as to oblige us to decide in favour of any one as better authenticated and better accredited than

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[3] Saturn. ii. 13. 371.

[4] Cf. Pliny, H. N. x. 71. Pliny indeed calls Fannius consul also. And he was consul U. C. 593 of Varro. But that is not consistent with Macrobius; nor yet with his own statement that the Lex Fannia was passed 11 years before the third Punic war. This war began U. C. 605, and 11 years before that would be U. C. 594 at least, if not U. C. 595.

[5] De Die Natali, xvii. p. 94.

[6] De Divinatione, i. 26. Cf. however, De Legibus, i. 2.

[7] H. N. xiii. 27.

[8] i. § 27.

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bus æstivis, Ol. vii. 2. referred to that epoch is of course B. C. 750 ex Palilibus.

With respect to Luctatius, or Lutatius: a Quintus Lutatius is quoted by Varro[9]; and the Communes Historiæ of Lutatius are referred to by Servius[10]. A Lutatius is quoted by the Auctor De Origine Urbis Romæ[11]; his first, second, and third books at least. An allusion to Lutatius occurs in the Fasti of Verrius Flaccus, opposite to the 23d of March[12]; the Tubilustrium of the calendar. We learn from Plutarch[13] that Q. Lutatius or Luctatius Catulus, (the colleague of Marius U. C. 652 of Varro, B. C. 102,) left an history behind him, which Plutarch knew of, but does not appear to have read. And this Lutatius Catulus was afterwards put to death by Marius, in or just before his viith consulship, U. C. 668 B. C. 87–86[14]. There is little doubt but that he must have been Solinus' Lutatius; in which case, his age, his rank, and his personal character, deservedly entitle his deliberate opinion on this particular question of the epoch of the Foundation to great respect: though we could not undertake to say that he did not derive it from Polybius; with whom he might have been personally acquainted, at least as a young man.

With respect to Cornelius Nepos: Catullus[15]:

Quoi dono lepidum novum libellum,
Arida modo pumice expolitum?
Corneli! tibi: namque tu solebas
Meas esse aliquid putare nugas
Jam tum cum ausus es unus Italorum
Omne ævum tribus explicare chartis,
Doctis Juppiter! et laboriosis.

The grounds of his date were no doubt explained in this work: which has unfortunately perished.

iii. Diodorus Siculus. Syncellus[16]: Ἔνιοι μὲν οὖν τῶν συγγραφέων πλανηθέντες ὑπέλαβον τοὺς περὶ τὸν Ῥωμύλον, ἐκ τῆς Αἰνείου θυγατρὸς γενηθέντας, κεκτικέναι τὴν Ῥώμην. τὸ δ' ἀληθὲς οὐχ οὕτως ἔχει, πολλῶν μὲν ἐν τῷ μεταξὺ χρόνῳ τοῦ τε Αἰνείου καὶ Ῥωμύλου γεγονότων βασιλέων, ἐκτισμένης δὲ τῆς πόλεως κατὰ τὸ δεύτερον ἔτος τῆς ζ' Ὀλυμπιάδος. αὐτὴ γὰρ ἡ κτίσις ὑστερεῖ τῶν Τρωϊκῶν ἔτεσι πλείω τῶν υ' κ̓,λ'. Diodorus' date of the capture of Troy was B. C. 1184. That of the city, Ol. vii. 2. B. C. 750, was 434 years later.

[9] De Lingua Lat. iv. p. 42.

[10] Ad Æn. ix. 710.

[11] i. 12. l. 6: 15. l. 6: 17. l. 5: 20. l. 6. In usum Delphini, 4to. 1726.

[12] Apud Foggini.

[13] Marius, xxv. xxvi. xxvii.

[14] Marius, xliv. Vell. Pat. ii. 22. It is probable too that the same Lutatius is meant in Lydus, De Mensibus, iv. 2. 52. 6, there referred to for his opinion concerning the Janus of Numa.

[15] i. 1. Ad Cornelium Nepotem.

[16] 366. 1—367. 3. Cf. Eusebius, Chron. Arm. Lat. i. 386. Diodorus, Fragm. lib. viii.

the rest; yet thus much must be evident from it—viz. that, among all the dates which are actually on record, four or five only, the Varronian B. C. 753, the Capitoline B. C. 752, the Catonian B. C. 751, the Polybian B. C. 750, or the Pontifical B. C. 749, are recommended by their *a priori* probability. The limits of error then upon this question are narrow, and well defined. The truth must lie somewhere within this compass of four or five years, from B. C. 753 to B. C. 749; according at least to the received rules of evidence, and to the usual principles which are allowed to decide the judgment in the comparison of different testimonies, and in striking the balance between opposite probabilities.

Of these four or five dates, supposed to be actually distinct, it might be difficult, perhaps impossible, *a priori* to say which ought to be preferred to which. In point of antiquity and of proximity to the event itself, the date of Cato and that of Polybius would both claim precedence over that of Varro; but on the very same principle the date of the Capitoline Fasti and that of the Annales Maximi would take precedence of that of Cato and of that of Polybius: while, if the personal qualifications and character of the authors of each of these dates, and the learning, the research, and the industry bestowed on the investigation of each, were to be taken into account, it would be difficult to decide whether the conclusion of Varro or that of Polybius was to be preferred.

It may be observed also of almost all the different reckonings of the æra of the city that, whatsoever the epoch which may have been assumed in a particular instance for the Foundation, the date of the Regifuge and of the first consulate in terms of any other æra is nearly the same in them all; and the series of consular years proceeds nearly in the same way in them all. The actual difference then in these various styles of the æra of the city, one in comparison of another, is confined to the interval from the Foundation to the Regifuge: i. e. to the length of time taken up by the reigns of the kings. Now as there were seven kings in this interval of time, their reigns might be differently reckoned by different authors; or some might reckon these reigns by current years some by complete. A difference in this last respect merely might make a difference of three or four years in the sum total of the reigns themselves, either in excess or in defect; and a difference of three or four years in the sum of the reigns, reckoned back from the date of the first consulship, (considered as a fixed and well understood point, about which there was little or no room for doubt,) would make a corresponding difference in the date of the Foundation.

It is evident therefore, under such circumstances as these, that what is wanted just at this stage of the inquiry, to interpose an authoritative judgment and to decide between conflicting opinions, is some distinct and independent testimony *ab extra;* which being superadded to the proper grounds of some one of these opinions *per se* may turn the scale in its favour. Now this distinct and independent testimony is supplied by the Roman calendar. The Roman calendar, traced back from the date of the Julian correction through every state and period of its previous existence, is found to take its rise on the kalends of March in the first year of the reign of Romulus and in the first year of the city; and yet on the Julian Feb. 4 B. C. 750. The testimony *ab extra* therefore of which we are still in want is that of the calendar; and the date which it confirms is that of Polybius: for, if the calendar took its rise on the kalends of March B. C. 750, the city must have come into being in that year too. The kalends of March indeed were not the day of the Foundation; but they were the first day of the same year of which the day of the Foundation was a certain day also. We know *this* day in the style of the calendar from tradition and testimony, independently of the year; but knowing also the year, and the first day of that year, as well as the calendar date of the day of the Foundation also, we have no difficulty in determining this latter from those data to its proper Julian date in its proper year: and as so determined it can also be confirmed by other proofs. But the preliminary question has always been that of the year; or how to decide between the claims of opposite years, each of them entitled apparently to the same distinction. The calendar does this for us; and its verdict is given in favour of the date of

Polybius, which only assigns the same year, B. C. 750. And this distinct and independent confirmation of *his* date by such a testimony as that of the actual rise of the Roman calendar, properly so called, in the same year, in our opinion ought to be decisive that Polybius' date and that only must always have been the true.

DISSERTATION II.

On the Calendar of Romulus.

CHAPTER I.

Section I.—*Preliminary considerations. Date of the Foundation.*

It seems to have been agreed among the Romans of later times that the calendar of Romulus was not only their oldest calendar, but that it came into existence along with the city of Rome; that the author of their first calendar was the founder of Rome; and that the application and use of their first calendar bore date from the beginning of the reign of their first king. Among the inquiries therefore, preliminary to the investigation of the nature, the constitution, the changes or modifications of the civil calendar at Rome from the earliest to the latest times, none would appear to be more necessary or more appropriate than the determination of the date of the foundation of Rome.

This question has just been considered. The various opinions, testimonies, and statements of antiquity upon that point in particular have been compared together. The result of the comparison has been to come to this conclusion; that, to judge from the most ancient, the most authentic, and the most credible testimony to that effect, the true date of the Foundation must have been confined within very narrow limits, B. C. 750 and B. C. 753; and in all probability was to be determined to the lowest of these extremes itself, B. C. 750. We have also observed that though testimony and authority were not competent to decide this question beyond the possibility of doubt or controversy, the calendar was so. We propose to make good this assertion, by investigating and fixing the earliest date of the civil calendar among the

Romans; and thereby to prove what we have also asserted, viz., that the testimony of the calendar confirms the date of the Foundation according to Polybius.

SECTION II.—*Whether the Calendar, ascribed to Romulus, was lunar or solar.*

The first subject of inquiry connected with this investigation appears to be *this;* What was the nature of the calendar, ascribed by the Romans to their founder? i. e. Whether it was lunar or solar in general? for every civil calendar must be either simply lunar or simply solar, or something made up of both, that is lunæsolar. We shall find it however most convenient to defer the proper answer to this question at present. Statements are found in later writers[u] that the calendar of Romulus was solar: but the opinion of the best informed of the Romans themselves, and the general belief of Roman antiquity on this point, may be considered to have been expressed in these lines of Ovid:

> Annus erat decimum cum luna repleverat orbem;
> Hic numerus magno tunc in honore fuit[w].

Macrobius in particular does not hesitate to affirm that the year of Romulus was so strictly lunar that all its months bore date Ex phasi[x]; and consequently that his calendar though lunar must have been regulated by no artificial cycle; by nothing but the natural course and actual phenomena of the moon: like the Arabian calendar of Hej'ra at the present day. This statement is undoubtedly mistaken: yet we may safely conclude even from the mistatement itself and from the observation of Ovid that, in the opinion and belief of the Romans, their *first* calendar, (the calendar derived from their founder,) was lunar in some sense or other, as much as any other which was afterwards in use among them.

SECTION III.—*Length of the year of Romulus: and first of the number of months contained in it. Testimonies.*

The next preliminary consideration is that of the *length* of the year of Romulus. And this is resolvable into two questions: i. What was the number of months? ii. What was the number of days, contained in his calendar?

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[u] For example, Lydus, De Mensibus, i. 16. p. 8, 9.

[w] Fasti, iii. 121.

[x] Saturnalia, i. 15. 272.

On the first of these points testimony is not uniform. According to some of the statements on record, the earliest calendar which was in use at Rome consisted of ten months: according to others it consisted of twelve. The question which we have to consider is Which of these classes of statements upon one and the same point is entitled to greater credit? We will produce them both, preparatory to any expression of our own opinion concerning either; beginning with those which imply that the civil year of Romulus, like any other intended to take the place of the natural year, and to serve as its substitute, was a year of twelve months.

i. Annum vertentem Romæ Licinius quidem Macer et postea Fenestella statim ab initio duodecim mensium fuisse scripserunt[y].

ii. *Μετεκίνησε δὲ καὶ τὴν τάξιν τῶν μηνῶν. τὸν γὰρ Μάρτιον, πρῶτον ὄντα τρίτον ἔταξε, πρῶτον δὲ τὸν Ἰανουάριον ὃς ἦν ἑνδέκατος ἐπὶ Ῥωμύλου, δωδέκατος δὲ καὶ τελευταῖος ὁ Φεβρουάριος, ᾧ νῦν δευτέρῳ χρῶνται*[z]—*Ἄλλοι δὲ ἱστοροῦσι τὸν μὲν Δεκέμβριον ἀπὸ τοῦ Μαρτίου δέκατον εἶναι, τὸν δὲ Ἰανουάριον ἑνδέκατον, τὸν δὲ Φεβρουάριον δωδέκατον……μετατεθῆναι δὲ τούτους, καὶ γενέσθαι τὸν Ἰανουάριον πρῶτον, ὅτι τῇ νουμηνίᾳ τούτου τοῦ μηνὸς, ἣν ἡμέραν καλάνδας Ἰανουαρίας καλοῦσιν, οἱ πρῶτοι κατεστάθησαν ὕπατοι, τῶν βασιλέων ἐκπεσόντων. πιθανώτεροι δέ εἰσιν οἱ λέγοντες ὅτι τὸν μὲν Μάρτιον ὁ Ῥωμύλος πολεμικὸς καὶ ἀρειμάνιος ὤν, καὶ δοκῶν ἐξ Ἄρεος γεγονέναι, προέταξε τῶν μηνῶν ἐπώνυμον ὄντα τοῦ Ἄρεος· Νουμᾶς δὲ αὖθις εἰρηνικὸς γενόμενος, καὶ πρὸς ἔργα τῆς γῆς φιλοτιμούμενος τρέψαι τὴν πόλιν ἀποστῆσαι δὲ τῶν πολεμικῶν, τῷ Ἰανουαρίῳ τὴν ἡγεμονίαν ἔδωκε, καὶ τὸν Ἰανὸν εἰς τιμὰς προήγαγε μεγάλας, ὡς πολιτικὸν καὶ γεωργικὸν μᾶλλον ἢ πολεμικὸν γενόμενον*[a].

iii. Vere novo gelidus canis de montibus humor
Liquitur[b].

On which Servius: *Novum ver* ideo ait quia anni initium mensis est Martius. et sciendum est decem tantum menses fuisse apud majores, (i. e. ten only which had names, from Martius to December,)…et hi erant tantum decem menses.

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[y] Censorinus, De Die Natali, xx.

[z] Plutarch, Numa, xviii.

[a] Plutarch, Quæstiones Romanæ, xix. cf. Numa, xix.

[b] Georgica, i. 43.

duo vero propter rationem signorum anni interkalabantur, qui postea a Jano et a Februario nominati sunt.

We shall next pass to the testimonies, according to which the year of Romulus consisted only of ten months.

i. Tempora digereret cum conditor urbis in anno
Constituit menses quinque bis esse suo.
Scilicet arma magis quam sidera Romule noras,
Curaque finitimos vincere major erat.
Est tamen et ratio Cæsar quæ moverit illum,
Erroremque suum quo tueatur habet.
Quod satis est utero matris dum prodeat infans
Hoc anno statuit temporis esse satis.
Per totidem menses a funere conjugis uxor
Sustinet in vidua tristia signa domo.
Hoc igitur vidit trabeati cura Quirini,
Cum rudibus populis annua jura daret[c].

Nec totidem veteres quot nunc habuere kalendas:
Ille minor geminis mensibus annus erat[d].

Ergo animi indociles et adhuc ratione carentes
Mensibus egerunt lustra minora decem*.
Annus erat decimum cum luna repleverat orbem:
Hic numerus magno tunc in honore fuit:
Seu quia tot digiti per quos numerare solemus;
Seu quia bis quino femina mense parit:
Seu quod adusque decem numero crescente venitur,
Principium spatiis sumitur inde novis.
Inde pares centum denos secrevit in orbes
Romulus, hastatos instituitque decem;
Et totidem princeps totidem pilanus habebat
Corpora, legitimo quique merebat equo.
Quin etiam partes totidem Titiensibus idem
Quosque vocant Ramnes Luceribusque dedit.
Adsuetos igitur numeros servavit in anno:
Hoc luget spatio femina mæsta virum[e].

Annus erat brevior: nec adhuc pia februa norant:
Nec tu dux mensum Jane biformis eras[f].

ii. Χαῖρε γυνὴ φιλότητι[g]—Id quum ego ad complures gram-

* That is, two months less than twelve every year; ten months less than sixty in five years: or ten months every lustrum, the proper length of which was five years.

[c] Ovid, Fasti, i. 27.
[d] Fasti, iii. 99.
[e] Fasti, iii. 119.
[f] Fasti, v. 423.
[g] Odyssey, λ. 247.

maticos adtulissem, partim eorum disputabant Homeri quoque ætate sicut Romuli annum fuisse non duodecim mensium sed decem[h].

iii. Sed magis Junio Gracchano et Fulvio et Varroni et Suetonio aliisque credendum, qui decem mensium (annum vertentem Romæ ab initio) putaverunt fuisse; ut tunc Albanus erat unde orti Romani[i].

iv. Romani initio annum decem mensibus computaverunt ......December sollemnem circuitum finiebat[k].

v. Non igitur mirum in hac varietate Romanos quoque olim auctore Romulo annum suum decem habuisse mensibus ordinatum[l]—Hæc fuit a Romulo annua ordinata dimensio, qui sicut supra jam diximus annum decem mensium instituit[m].

vi. *Πολλοὶ δέ εἰσιν οἱ καὶ προστεθῆναι τούτους ὑπὸ Νουμᾶ τοὺς μῆνας λέγουσι, τόν τε Ἰανουάριον καὶ τὸν Φεβρουάριον, ἐξ ἀρχῆς δὲ χρῆσθαι δέκα μησὶν εἰς τὸν ἐνιαυτόν*[n]*—Ῥωμαῖοι δὲ ὅτι μὲν δέκα μῆνας εἰς τὸν ἐνιαυτὸν ἔταττον οὐ δώδεκα τεκμήριον ἡ τοῦ τελευταίου προσηγορία, δέκατον γὰρ αὐτὸν ἄχρι νῦν καλοῦσιν...... τῶν δὲ ὑπὸ Νουμᾶ προστεθέντων ἢ μετατεθέντων ὁ μὲν Φεβρουάριος οἷον καθάρσιος ἄν τις εἴη......ὁ δὲ πρῶτος Ἰανουάριος ἀπὸ τοῦ Ἰανοῦ*[o]*—Τὸ γὰρ παλαιὸν ὁ Μάρτιος ἠριθμεῖτο πρότερος, ὡς ἄλλοις τε πολλοῖς δῆλόν ἐστι τεκμηρίοις καὶ μάλιστα τῷ τὸν πέμπτον ἀπὸ τοῦ Μαρτίου πέμπτον καὶ τὸν ἕκτον ἕκτον ὀνομάζεσθαι, καὶ τοὺς ἄλλους ἐφεξῆς ἄχρι τοῦ τελευταίου, ὃν Δεκέμβριον καλοῦσιν, ἀπὸ τοῦ Μαρτίου δέκατον ἀριθμούμενον. ἐξ οὗ δὴ καὶ παρέστη τισὶν οἴεσθαι καὶ λέγειν ὡς οὐ δώδεκα μησὶν ἀλλὰ δέκα συνεπλήρουν οἱ τότε Ῥωμαῖοι τὸν ἐνιαυτὸν, ἐνίοις τῶν μηνῶν ἡμέρας πλείονας τῶν τριάκοντα προστιθέντες*[p].

vii. *Ἐκτότε ἤδη οἱ Ῥωμαῖοι ἐμεγαλύνοντο, τοῦ θεοῦ κρατύνοντος αὐτοὺς, ἐκτισμένης τῆς Ῥώμης ὑπὸ Ῥωμύλου τοῦ παιδὸς ἱστορουμένου Ἄρεως καὶ Ἰλίας Ὀλυμπιάδι ζ′ τῇ πρὸ ι′ καὶ α′ καλανδῶν Μαΐων, τοῦ ἐνιαυτοῦ τότε δεκαμήνου ἀριθμουμένου.*[q]

viii. *Ἐν μὲν τῇ Ῥώμῃ τῶν τινες πατρικίων τὰ Σιβύλλης λόγια προὔφερον, ἰσχυριζόμενοι τὸν κίνδυνον τῇ πόλει ἄχρι ἐς τὸν Ἰούλιον μῆνα γεγενῆσθαι μόνον . . . πέμπτον δὲ μῆνα τὸν Ἰούλιον*

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[h] A. Gellius, iii. 16.

[i] Censorinus, xx.

[k] Solinus, i. § 35.

[l] Macrobius, Saturn. i. 12. 255.

[m] Macrobius, Ib. 262.

[n] Plutarch, Numa, xviii.

[o] Plutarch, Ibid. xix.

[p] Plutarch, Quæstiones Romanæ, xix.

[q] Theophilus ad Autolycum, iii. 26. 382.

ἰσχυρίζοντο εἶναι οἱ μὲν ὅτι Μαρτίου ἱσταμένου ἡ πολιορκία κατ' ἀρχὰς γέγονεν, ἀφ' οὗ δὴ πέμπτον τὸν Ἰούλιον συμβαίνει εἶναι, οἱ δὲ ὅτι Μάρτιον πρῶτον πρὸ τῆς Νουμᾶ βασιλείας ἐνόμιζον μῆνα, ὅτε δὴ Ῥωμαίοις ἐς δέκα μῆνας ὁ τοῦ ἐνιαυτοῦ χρόνος ξυνῄει, ὁ Ἰούλιός τε ἀπ' αὐτοῦ Κυντίλιος ὠνομάζετο[r].

ix. Ἀρχὴν δὲ ἐνιαυτοῦ δίδωσι Ῥωμύλος τὸν Μάρτιον μῆνα . . . δέκα μόνοις μησίν[s]—Ἐπὶ δὲ Ῥωμύλου ὁρίζεται ὡς ἐλέγομεν ἔμπροσθεν δεκαμηνιαῖος (ὁ ἐνιαυτός.)[t]—Καὶ ἐπὶ μὲν Ῥωμύλου ὁ νῦν καλούμενος Μάρτιος μὴν πρῶτος ἦν[u].

x. Λέγεται δὲ καὶ τὸν Ἰανουάριον καὶ τὸν Φεβρουάριον παρ' αὐτοῦ (sc. τοῦ Νουμᾶ) τοῖς μησὶ προστεθῆναι, δωδεκάμηνον κατὰ τὸν τῆς σελήνης δρόμον νομοθετήσαντος λογίζεσθαι τὸν ἐνιαυτὸν, δεκάμηνον πρόσθεν ὄντα[w].

xi. Annum in xii menses distribuit (Numa) additis Januario et Februario[x]—Numa Pompilius duos menses anno addidit, Januarium et Februarium, quoniam prius x mensibus (annus) appellabatur[y]—Numa Pompilius duos menses anno addidit, Januarium et Februarium; quum antehac decem tantum menses apud Romanos fuissent[z]—Νουμᾶς . . . τῷ ἐνιαυτῷ δύο μῆνας προσέθηκε τόν τε Ἰανουάριον καὶ τὸν Φεβρουάριον, δεκαμηνιαίου τοῦ ἐνιαυτοῦ πρὸ τούτου χρηματίζοντος[a]—Qui (Numa) duos menses anno addidit Januarium et Februarium, cum ante hunc decem tantum menses apud Romanos fuissent[b].

xii. Annum descripsit (Numa) in decem menses, prius sine aliqua computatione confusum[c]. This is said of Numa; but, unless the text is to be corrected by reading *duodecim* instead of *decem*, the statement could have been true only of Romulus: viz. that, having found the year at Rome without any order or distinction of parts, he was the first who distributed it into a certain number of months, viz. *ten*.

SECTION IV.—*Observations on the preceding Testimonies.*

The juxtaposition of these different statements, and the comparison of the names by which they are supported respectively, are sufficient to show that not only in number, but also in weight and authority, those which make the Roman year originally one of ten months only preponderate over those which suppose it to have been from the first what it certainly was after a time, a year of twelve months. Licinius Macer indeed and Fenestella were writers of credit among the Romans, especially the former; and their opinion on a question of this kind would be entitled to consideration, were it not so directly opposed to the testimony of Roman writers also of equal if not of superior authority, Fulvius, Junius Gracchanus, Varro, Ovid, Suetonius; to mention no more*: as well as to the general belief of Roman antiquity on the very same point. The concurrence of popular persuasion and general belief in this instance too, as well as in that which authenticates the day of the Foundation, is resolvable into nothing so probably as an uninterrupted tradition, founded originally on the matter of fact.

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[r] Procopius, De Bello Gotthico, i. 24. 117. l. 14: of the siege of Rome, A. D. 537–538: cf. ii. 2. 154. 14.

[s] Lydus, De Mensibus, i. 14. 7. l. 18.

[t] Ibid. 16. 8. l. 14.

[u] Ibid. 16. 9. l. 12.

[w] Zonaras, vii. v. 322. D.

[x] Auctor De Viris Illustribus, Numa.

[y] Eusebius, Chron. Arm. Lat. Pars ii. 179. ad ann. 1303. Ol. 16. 4.

[z] Thesaurus Temporum, ad ann. 1306. Ol. 17. 2.

[a] Syncellus, 398. 4.

[b] Cassiodorius, In Chronico, De Numa.

[c] Eutropius, i. 2.

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* Fulvius: Fragmenta Historicorum Vett. apud Sallustium, ii. 325: L. Cœlius Antipater, Ex Carisio: Publicatos quippe Fastos omnes et libros a Fulvio Nobiliore scripta retulisse—Macrobius, Saturnalia, i. 12. p. 258. (cf. i. 13. 267): Nam Fulvius Nobilior in Fastis quos in æde Herculis Musarum posuit, &c—Servius, ad Æneid. i. 8. Musa: His Numa ædiculam æneam brevem fecerat. quam postea de cœlo tactam et in æde Honoris et Virtutis conlocatam Fulvius Nobilior in ædem Herculis transtulit: unde ædes Herculis Musarum appellatur. Cf. Cicero, Oratio xxvi. Pro Archia, 11: Suetonius, Augustus, xxix. 13: Ovid, Fasti, vi. 797. ad Prid. Kal. Julias: Panegyrici Veteres, iv: Eumenius, Pro instaurandis Scholis, vii. 3. This Fulvius appears to have been the consul of that name, U. C. 565 B. C. 189, and the friend of Ennius; see supra, p. 18 note. This temple was probably dedicated by him when he celebrated his Ludi Votivi, U. C. 568 B. C. 186: Livy, xxxix. 6. 22, 23. His style in the Fasti Capitolini is M. Fulvius Nobilior. In Almeloveen's it is M. Fulvius Ser. (Servius) Nobilior. Varro, De Lingua Lat. v. 60. seems to mean him under the name of Fulvius Flaccus.

Junius Gracchanus: so called, according to Pliny, H. N. xxxiii. 9. p. 41: Ab amicitia Caii Gracchi. Hence his age; circa B. C. 123. Varro, De Lingua Lat. v. 60. calls him Junius Gracchus. Lydus, De Magistratibus, i. 24. 139. l. 12–19. quotes an extract from him, which would imply that he was later than Fenestella. The last sentence however of that passage is Lydus' own, not Gracchanus'.

Licinius Macer: Cicero, De Legibus, i. 2, 6, 7, places Macer next to Cœlius (Antipater) a contemporary of C. Gracchus also; and makes him a contemporary of Sisenna's: he must consequently have been living in Cicero's time. His history is often quoted by Livy; and therefore had been published before Livy's.

Fenestella: Pliny, H. N. xxxiii. 52. 169: Fenestella, qui obiit novissimo Tiberii Cæsaris principatu. Jerome, Thes. Temp. dates his death Ol. 199. 3. A. D. 19. at 70.

Nor is it difficult perhaps to account for the contrary belief of some few of the learned among the Romans in after times; without calling its truth altogether into question. The Primitive Equable year, which was in use in Italy before the first correction of the calendar was made in that country, continued to be in use in that country even after those corrections had begun to be made. Nor was it superseded among the Romans themselves even by the correction of Romulus. This primitive calendar was always a perfect exemplar of the civil calendar; and always consisted of twelve months. It is therefore a very possible supposition that those statements of after times, which represented the Roman year as one of twelve months from the first, confounded the primitive equable year, common to all Italy and older than any correction of itself among the Italians, with the first and oldest calendar of the Romans; with that which they were known to have derived from their founder Romulus: both being in fact after a time coexistent, and one of them consisting of twelve months, though the other had no more than ten. But that the real state of the case in this respect, with regard to the oldest form of the civil year among the Romans, is more truly represented by the testimonies opposed to these, we should not hesitate to conclude from the superior authority of those testimonies themselves: besides which, there are some distinct arguments of the truth of the fact to which they depose, whereby they may be further confirmed or illustrated.

i. It seems to be agreed that two months were added to the Roman year by Numa. Now the Roman year never consisted of more than twelve months: and if two of these had no existence before the time of Numa the Roman year before his time could not have consisted of more than ten months. It is agreed too that the months added by Numa were January and February: consequently all the months even in his year except January and February must have made part of the year of Romulus. It is agreed too that January was the first month in the year of Numa, and February was the last; and as these were added by Numa to the year of Romulus, and one of them was placed at the beginning of it and the other at the end, the ten months between these extremes must have been common to the calendar of Romulus as well as to that of Numa; and must have followed each other in the same order in the calendar of Romulus, as in Numa's: an order indicated by their names themselves, as some of the testimonies produced above justly observed. Quinctilis for instance even in the calendar of Numa proved by its name that it must have been once the fifth month; December that it must have been once the tenth: though in the calendar of Numa the former was actually the sixth, and the latter was actually the eleventh. This is explained, if Martius was always the first month in the calendar of Romulus, and December was always the last; and the number of months in that calendar was neither more nor less than ten.

ii. There were certain purposes for which the length of the civil year among the Romans, as determined by law, or by a prescription and custom of long standing, was limited to ten months. One well known example of this kind was the year of mourning; whether in the case of wives for their husbands (the legal term of widowhood[d]), or in that of relations for relatives in general[e]. In each of these cases the term prescribed by law and sanctioned by use and observance was *ten* months; even when the year *de facto* consisted of twelve. In this particular case ten months passed for a year. No explanation of that fact is so probable as that ten months were once the actual length of the year for every purpose both of public and of private life; and the rule having thus been established, (and at first in entire conformity both to the laws and to the reason of things,) that those who mourned for a year should mourn for *ten* months, this was sufficient to make the legitimate period of mourning for a year to be considered one of ten months still, even when the civil year had now come to consist of twelve. It cannot at least be doubted that such was the rule at Rome from first to last; and that any allusion in Roman history to a period of mourning in a particular instance nominally for the term of a year is to be understood of ten months only: such as the mourning of the matrons for Brutus[f], or for Poplicola[g], both which Livy expresses by their mourning a year; or the mourning of the people in general for Menenius Agrippa, which Dionysius says was for a year[h]; or the mourning of the matrons for Coriolanus, which Plutarch[i] distinctly limits to ten months, though it was no doubt nominally for a year. Whether this custom was common to the rest of the people of Italy, whose calendars at the time of the Foundation resembled the Roman in this respect of consisting of ten months only, we cannot say in the absence of direct testimony to that effect; but at Rome in particular it is self-evident that such a peculiar construction of the term of a year as this must be traced up ultimately to the constitution of the calendar itself: and therefore that the term of a year so defined is one among other arguments that the Roman year must have consisted originally of ten months, and ten months only *.

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[d] Ovid, Fasti, i. 35: iii. 134: Dionys. Hal. v. 48 ad fin.: Seneca, i. 193: Ad Helviam Matrem, xvi. 1: Plutarch, Antonius, xxxi.

[e] Dionys. Hal. viii. 62: Plutarch, Numa, xii.: Poplicola, xxiii.: Coriolanus, xxxix.

iii. Another example of the same kind is the length of the annus fœnebris, the year of credit among the Romans. In this case too, the term prescribed by law, in the sense of a

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* We may add to the above cited instance of the legal definition of a year at Rome, in this particular case, the term prescribed by law also for payments which had to be made out of dowry or jointure, under the will of a mother, by or for her surviving children: which appears to have been ten months also. Such payments at least were to be made in *three* years and by *three* instalments; the first within *ten* months after the death, and therefore we may suppose the second in ten months more: and consequently the whole in 30 months, in three equal payments, ten months one after another. See a case in point, mentioned by Polybius, xxxii. 13 § 5, 6. on the death of the wife of Scipio Africanus the elder, two years before that of Æmilius Paullus her brother. Consequently B. C. 162: 8 § 1: 14 § 1: cf. xviii. 18 § 6.

[f] Livy, ii. 7: cf. Dionys. Hal. v. 48 ad fin.: Auctor De Viris Ill. Brutus.

[g] Livy, ii. 16: cf. Dionys. Hal. v. 48 ad fin.: Plutarch, Poplicola, xxiii.: Auctor De Viris Ill. Poplicola: Eutropius, i. 11.

[h] vi. 49. 96: ix. 27.

[i] Vita, xxxix.: Dionysius, viii. 62.

year, and recognised in all contracts between buyers and sellers, debtors and creditors, was *ten* months also. Thus Cato, De Re Rustica, speaking of the sale of the olive before it was gathered, the *olea pendens;* Dies argento ex Kal. Nov. mensium x[k]: i. e. the money was to be considered due ten months after the kalends of November, in which month the olive was usually ready for gathering, and was wont to be gathered. He adds, Si emtor locarit Idibus solvito. The meaning of which appears to be that, if the first buyer of the crop disposed of his bargain to a third party, the term of credit should be extended from the Kalends to the Ides of the same month; probably because the buyer himself could not expect to get his own money in before the Kalends. The same direction is given with respect to the sale of the fructus ovium; Menses x ab coactore releget[l]: i. e. whensoever the sale was concluded credit was to be given for ten months, but no longer. The buyer must pay down the price of what he had bought in ten months*.

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* With regard to the *annus fœnebris* properly so called, or the length of time which was to be considered and called a year in the case of money lent on interest; there is a passage in Festus, which would probably have thrown some light on that question had it been entire; and even as it is, it may authorize the inference that because the length of the year of credit had been originally ten months, and money lent for a year was lent for ten months, so when the year had now come to consist of twelve months, and money lent for a year was now lent for twelve months, the usurers at Rome had taken advantage of the old rule, to expect the same rate of interest for ten months as for twelve: i. e. the rate of interest itself being assumed at one per cent. on the principal every month, they charged twelve per cent. for every ten months; an enlargement of the sense and meaning of a year in this particular case, suggested indeed by their own avarice and rapacity, yet founded at bottom on an acknowledged matter of fact; viz. that in all pecuniary transactions of this kind ten months did originally denote a year, and that a year's interest was due at the end of ten months.

The passage to which we allude is De Verborum significatione, xix. 595, 6: Unciaria lex dici cœpta est quam L. Sulla et Q. Pompeius Rufus tulerunt; qua sanctum est ut debitores decimam partem . . . The rest of the sentence is lost. We can only guess at what probably followed. The fact itself must have happened U. C. 666 in the consular year of Sulla and Pompeius. The title of the law, *unciaria lex,* compared with the

[k] Cap. cxlvi.

[l] Cap. cl.

SECTION V.—*On the number of days contained in the year of Romulus.*

The next point for our consideration is the number of days contained in the year of Romulus. And on this point, with one exception, testimony is uniform. Our authorities are agreed that the year of Romulus consisted of 304 days and no more.

i. Hi decem menses dies trecentos quatuor...habebant[m].

ii. December sollemnem circuitum finiebat intra diem trecentesimum quartum[n].

iii. Non igitur mirum in hac varietate Romanos quoque olim auctore Romulo annum suum decem habuisse mensibus ordinatum, qui annus...conficiebatur diebus trecentis quatuor[o]—Hæc fuit a Romulo annua ordinata dimensio, qui sicut supra jam diximus annum decem mensium dierum vero quatuor et trecentorum habendum esse instituit[p].

Though these are all the testimonies of antiquity which have deposed to this point expressly, they are to the same effect; and Censorinus' is one of the number. There is nothing to allege to the contrary but the following statement of Plutarch[q]: *Ἥψατο δὲ καὶ τῆς περὶ τὸν οὐρανὸν πραγματείας οὔτε ἀκριβῶς οὔτε παντάπασιν ἀθεωρήτως. Ῥωμύλου γὰρ βασιλεύοντος ἀλόγως ἐχρῶντο τοῖς μησὶ καὶ ἀτάκτως, τοὺς μὲν οὐδ' εἴκοσιν ἡμερῶν τοὺς δὲ πέντε καὶ τριάκοντα τοὺς δὲ πλειόνων λογιζόμενοι· τῆς δὲ γινομένης ἀνωμαλίας περὶ τὴν σελήνην καὶ τὸν ἥλιον ἔννοιαν οὐκ ἔχοντες, ἀλλ' ἓν φυλάττοντες μόνον ὅπως ἑξήκοντα καὶ τριακοσίων ἡμερῶν ὁ ἐνιαυτὸς ἔσται.*

This description of the state of the Roman calendar before the correction of Numa is not justified by the matter of fact.

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allusion to the *decimam partem* seems to imply that though the *uncia* was properly the twelfth part of the *as*, yet in this particular case it was treated as the *tenth*—which this law remitted to the debtors; i. e. supposing the interest charged on the principal sum to have been such as we assume, 12 per cent. on every ten months, the remedy or relief provided by this law was by remitting one tenth of the whole, or one per cent. out of every ten.

[m] Censorinus, xx.

[n] Solinus, i. 36.

[o] Macrobius, Saturn. i. 12. 255.

[p] Ibid. 262.

[q] Numa, xviii.: cf. Gaza, De Mensibus, viii. 291. B. C.

As to what it asserts of the lengths of the months, as so different from one another, and so irreconcilable to the ordinary length of the solar or of the lunar month, whether there were any calendars among the neighbours of the Romans in the time of Romulus to which it might be more or less applicable, is another question; but the calendar of Romulus at least, as we trust it will appear in due time, was not of that number. The representation however is not consistent with itself; if, as it clearly implies, the year of Romulus in the opinion of Plutarch was lunæsolar, yet so regulated by means of months of unequal and constantly varying lengths as always to contain 360 days. How a given year could be lunæsolar, yet consist of 360 days perpetually, it would be difficult to say; unless like the lunæsolar year of the Greeks it consisted nominally indeed of 360 days, but really of 354: which however we apprehend is not what Plutarch meant in this instance.

In short we cannot account for this statement in opposition to other and better testimony on the same point, except by supposing that Plutarch confounded the equable solar year of 365 days older than Romulus, yet still in existence in his time, with the lunar year of Romulus; for even the equable solar year of 365 days, by leaving out of sight the five epagomenæ at the end, was capable of being regarded and represented as a year of 360 days[r].

The observation of Servius[s] that the Roman year always consisted of twelve months, ten of which had names, and two had not, and that these two were intercalary months, inserted in the calendar every year; implies in like manner that the year consisted nominally of a certain number of days, (whether 304 or more or less than 304,) but in reality of as many more than that number as made up the difference between a year, nominally of that number of days, and a lunar year of 354 or 355, or even of 384 or 385, days in length. And it is very possible that he might be aware that the year of Romulus was traditionally represented as one of 304 days, though he does not expressly say so. But this idea of an annual intercalation, intended to be supplementary to a stated period of 304 days, and to make it every year a proper and legitimate representation of the ordinary lunar year, is so singular, and so destitute of support from any other quarter, that it can be considered only an isolated opinion of Servius'. It confounds the essential distinction between the year of Romulus and that of Numa; which resided in this very circumstance that the latter contained two months more than the former, but in other respects was the same with it. It makes no difference whether these two months had names in the calendar of Romulus or not; if they entered into it at all. The question is whether they made part of the year of Romulus in any form, or only of that of Numa; for if they did there was no difference between the year of Romulus and that of Numa except a nominal one. None of the ancients but Servius would imply that Numa merely gave names to these two months. All the rest agree that he introduced them into the calendar; that these two months were added by Numa to those of Romulus: and that two months more in the one, or two months less in the other, made the whole difference between the year of Numa and the year of Romulus.

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[r] Fasti Catholici, i. 614. Diss. viii. ch. i. sect. iii.

[s] Supra, p. 65.

We may conclude then that, according to the most credible testimony to which we could appeal on this point at present, the year of Romulus contained only ten months, and those ten months contained only 304 days: i. e. the year of Romulus was one of 304 days merely. Now nothing more than the simple statement of this fact is necessary to make it appear *prima facie* that the year of Romulus must have presented a striking contrast to every known form of the civil year besides. No one can require to be told that a calendar year limited to 304 days and nights must have been singular of its kind. It adds only to the singularity and anomaly of the contrast that, according to the testimony of antiquity, this year so limited was nevertheless a lunar year. It seems almost a contradiction in terms to speak of a year of 304 days as notwithstanding a lunar year. Yet each of these statements concerning the year of Romulus rests on equally good authority. If we receive either on the faith of testimony we must receive the other also. We cannot suppose that the ancients were not as much aware as we ourselves can be of the apparent inconsistency between these two different accounts of the same thing; and consequently we can imagine no probable reason for the uniformity of their representations in this respect, except the matter of fact, and their own conviction of the truth of their representations. The calendar year of Romulus must really have combined these seemingly contradictory characters of being a lunar year and yet of consisting of 304 days only. In what manner it might unite two such opposite qualities possibly might not be known even to the best informed of the Romans in the time of Augustus; and yet tradition and common belief might have transmitted the matter of fact itself to their times, exactly as they represent it. The same thing has happened in other instances, that facts have been handed down from the remotest times, long after the reasons or circumstances of the facts themselves have ceased to be remembered.

SECTION VI.—*Of the distribution of the days in the year of Romulus among its several months.*

The next question for our consideration is that of the distribution of this number of days, peculiar to the calendar of Romulus, among its different months. And on this point testimony is not uniformly to the same effect.

i. *Ῥωμύλου γὰρ βασιλεύοντος ἀλόγως ἐχρῶντο τοῖς μησὶ καὶ ἀτάκτως, τοὺς μὲν οὐδ᾽ εἴκοσιν ἡμερῶν, τοὺς δὲ πέντε καὶ τριάκοντα, τοὺς δὲ πλειόνων λογιζόμενοι*[t].

ii. *Ἐπὶ δὲ Ῥωμύλου ὁρίζεται ὡς ἐλέγομεν ἔμπροσθεν δεκαμηνιαῖος (ὁ ἐνιαυτός)· τῶν μὲν ὑπὲρ τριάκοντα ἡμέρας πολλῷ τῶν δὲ ἐλάττονας λαχόντων μηνῶν*[u].

iii. December sollemnem circuitum finiebat intra diem trecentesimum quartum; tunc enim iste numerus explebat annum: ita ut sex menses tricenûm dierum essent, quatuor reliqui tricenis et singulis expedirentur[w].

iv. Hi decem menses dies trecentos quatuor hoc modo habebant . . . quorum quatuor majores pleni ceteri sex cavi vocabantur[x]: these *menses pleni*, as it appears from the scheme interposed, consisting of 31 days each, and the *menses cavi* of 30.

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[t] Plutarch, Numa, xviii; Cf. Quæstiones Romanæ, xix.

[u] Lydus, De Mensibus, i. 16. p. 8. l. 12.

[w] Solinus, i. 36.

[x] Censorinus, De Die Natali, xx.

v. Non igitur mirum . . . qui annus . . . conficiebatur diebus trecentis quatuor; ut sex quidem menses . . . tricenûm essent dierum, quatuor vero . . . tricenis et singulis expedirentur[y]—Hæc fuit a Romulo annua ordinata dimensio; qui . . . annum decem mensium dierum vero quatuor et trecentorum habendum esse instituit, mensesque ita disposuit ut quatuor ex his tricenos et singulos sex vero tricenos haberent dies[z].

To judge from the agreement of the last three of these representations, we must conclude that the ten months which made up the civil year of Romulus were divided into six of 30 days each, called *cavi*, and four of 31 days each, called *pleni*. But Macrobius himself has another statement on this very point, which should by all means be compared with the preceding. Romulus enim, cum ingenio acri quidem sed agresti statum proprii ordinaret imperii, initium cujusque mensis ex illo sumebat die quo novam lunam contigisset videri. quia vero non continuo evenit ut eodem die semper appareat, sed modo tardius modo celerius ex certis caussis videri solet; contigit ut cum tardius apparuit præcedenti mensi plures dies, aut cum celerius pauciores, darentur: et singulis quibusque mensibus perpetuam numeri legem primus casus addixit. sic factum est ut alii triginta alii undetriginta sortirentur dies[a].

On this principle the *menses pleni* of Romulus consisted of 31 days, which is agreeable to the preceding statements on that point; but the *menses cavi* consisted of 29 days only, not of 30. Now this was the proportion of these two kinds of months, one to the other, respectively in the calendar of Numa; and were there only good reason to suppose that the calendar of Numa merely retained and perpetuated the rule of that of Romulus in this respect, the analogy of the rule of the alternation in the calendar of Numa would be a decisive argument of that in the calendar of Romulus.

On this particular question then it is better that we should suspend our judgment for the present. We will observe only that the ancients might speak *conjecturally* concerning it, from what they apprehended to be most natural and most probable; without any certain knowledge of the real state of the case. They were aware that the calendar of Romulus contained only 304 days: and that these were to be distributed in some manner or other among ten months. It might appear at first sight the most obvious and most convenient rule to assign 30 days to each of some six of these ten, and 31 days to each of the remaining four. Otherwise, since Censorinus in particular[b] supposes the Roman year to have been originally the same with the Alban, and each of them alike to have been a year of ten months; it might very reasonably be demanded of him, why he did not also suppose the lengths of the months in the Roman year to have been originally the same with those of the months in the Alban? of which year he himself gives us to understand[c] that it contained months of very unequal lengths. The derivation of the first Roman calendar from an older one, previously digested and laid down in a certain manner, would naturally lead us to expect that the first Roman calendar also would be found to have been digested and distributed in a similar manner; and in particular that months of the same name in each would be of the same length in each also. And so Plutarch appears to have reasoned; for his account of the lengths of the months in the Roman calendar of Romulus is clearly to the same effect as Censorinus' of those of the months in the Alban calendar. But the truth is, as we hope to make it appear by and by, the calendar of Romulus was not derived from the calendar of Alba, but from a different calendar; of the same kind indeed in general as that of Alba, yet not necessarily in all its details the same with that of Alba.

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[y] Macrobius, Saturn. i. 12. 255.

[z] Ibid. i. 12. 262.

[a] Ibid. i. 15. 272.

SECTION VII.—*On the names and order of the months in the Calendar of Romulus.*

The next subject of inquiry would seem to be that of the names and the order of the months in the calendar of Romulus; and preliminary even to this question there might be a more general one, whether the months of the civil year before the time of Romulus, (that is those of the Primitive Calendar itself,) had proper names at all, or not? by proper names being understood such as would be opposed to merely numerical designations; especially such as would characterise and define the place of the months relatively to the seasons, and to the revolution of the natural year. For to suppose that the months in any state of the calendar anciently were destitute of names or distinctions of any kind, whereby to discriminate them asunder, and to determine the order of succession among them, would be absurd.

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[b] De Die, xx.

[c] Ibid. xxii.

Now in the Primitive civil calendar one and the same rule appears to have every where held good at first[d], viz. that the months had no names but those of number and order; i. e. the first, the second, and so on: and while the calendar continued every where to be still cyclical, and the months to be still liable to revolve perpetually through all the seasons of the natural year, this simple and primitive rule for the names of the months appears to have been very generally retained also. Thus much at least may be asserted; viz. that the first imposition of proper names on the months, (of names no longer distinctive merely of number and order, but of something else,) was in no instance older than the first correction or modification of the Primitive Calendar itself: and that, in tracing the history of that calendar beyond this date of the earliest correction thereof, we may lay it down as a general rule that names of number and order in a particular instance are evidences of a calendar which was still cyclical; names of any other description are so of a calendar, originally cyclical, but which had now been changed or modified in some manner or other, different from before, once at least.

Now to judge from what tradition has handed down concerning the calendar of Romulus also in this respect, it must be evident that it could not have been any exception to the general rule which appears to have thus regulated the nomenclature of the months. Four of its months indeed have descended to posterity under proper names; but the remaining six under names of number and order only, i. e. under names which follow the primitive rule. It is agreed too that Romulus himself gave those proper names to these four months; and that must imply that previously they had no such names: and consequently that, if they had names at all, they must have been like the names of the rest; the old rule for naming and distinguishing the months must have been once as applicable to these four, as to the other six, though for particular reasons, and as both alike made part of the calendar of Romulus in contradistinction to any other of the same kind, while the old names were retained for the last six, new ones were invented for these four, and were substituted instead of the old.

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[d] Cf. our Fasti Catholici, i. 589. Diss. vii. ch. iv. sect. iii. Introduction to the Tables of the Fasti Catholici, p. 47. Part i. ch. iv. sect. ii.

We are aware indeed that, according to some of the statements on this point which have been produced or will be hereafter produced, the names of these four months occurred in other calendars, as well as in that of Romulus; and therefore that it may be objected to the preceding conclusion that Romulus transferred these four names from some other calendar of the time to his own. But testimony is almost unanimous that he himself gave those names to these four months; and it is just as conceivable that contemporary calendars might afterwards borrow them from *his*, as that he should have taken them in the first instance from any other. It is certain at least that no month is known to have made part of any Italic calendar as old as the time of Romulus, or even later than his time, under a *proper* name, except one of these four which had proper names in *his* calendar. It is observable too that the only two months in the Roman calendar which have proper names as well as these four, Januarius and Februarius, are nowhere represented to have formed a constituent part of the calendar of Romulus, at least under those appellations. If Numa Pompilius was not the first to introduce these months into the calendar, it is agreed that he was the first to give them names.

Now the names of the months in the calendar of Romulus, as they have been handed down traditionally, are these.

Names of the months in the Calendar of Romulus.

Martius
Aprilis
Maius
Junius
Quinctilis
Sextilis
September
October
November
December.

And this tradition being received as genuine and authentic; the order of the months in such a calendar, beginning with that which was called Quinctilis and ending with that which was called December, could not be doubtful. It would be indicated by the names of the months themselves. And the order of the last six being thus ascertained, that of the first four would be generally determined also. It must be prior to that of the last six at least. It would in fact be only probable *a priori* that, in such a calendar as this and so distinguished in point of nomenclature, the months which had proper names must have preceded those which had not; and that this might be the very reason why proper names were given to these four, and to none of the rest, that these were the first of all.

The question then which we have to consider at present is not What was the order of the first four months in the calendar of Romulus relatively to the last six; or What was the actual order of these last six months one in comparison of another; but What was the relative order and succession of the first four months among themselves? There can be no uncertainty on either of those other two points; but there may be some concerning this last: for these four months do not declare their own order relatively to each other by their names alone, as those six do. And the proper mode of removing this uncertainty is either by means of positive testimony to the actual place of each of these months in the calendar of Romulus from the first, or by the help of particular arguments, derivable from the meaning and import of the names of these months themselves, and founded in the reason of things. In themselves too these two modes of arriving at the truth on the same question are perfectly different; and therefore it would be desirable that, in applying each of them to its proper purpose, one should be kept distinct from the other. It happens however that testimony to the place of these months in the calendar is so mixed up with testimony to the etymology and meaning of their names also, that these two parts of a common argument could not, without a great deal of unnecessary repetition, be stated distinctly. We have no alternative therefore except to class both together, under the general head of Testimony both to the

place and to the order of the first four months in the calendar of Romulus in general, and to the etymology, derivation, and meaning of these four names, Martius, Aprilis, Maius, and Junius, in the same calendar in particular.

SECTION VIII.—*Testimonies to the order, or to the etymon, of the first four months in the Calendar of Romulus.*

i. Martis erat primus mensis Venerisque secundus:
Hæc generis princeps ipsius ille pater.
Tertius a senibus: juvenum de nomine quartus:
Quæ sequitur numero turba notata fuit[e].

Jam modo qua fuerant silvæ pecorumque recessus
Urbs erat: æternæ cum pater Urbis ait,
Arbiter armorum, cujus de sanguine natus
Credor, et ut credar pignora certa dabo;
A te principium Romano ducimus anno:
Primus de patrio nomine mensis eat[f].

Romulus hos omnes ut vinceret ordine saltem
Sanguinis auctori tempora prima dedit[g].

Hoc pater Iliades cum longum scriberet annum
Vidit, et auctores rettulit ipse suos.
Utque fero Marti primam dedit ordine sortem,
Quod sibi nascendi proxima caussa fuit;
Sic Venerem gradibus multis in gente repertam
Alterius voluit mensis habere locum[h].

Ille suos semper Venerem Martemque parentes
Dixit, et emeruit vocis habere fidem:
Neve secuturi possent nescire nepotes
Tempora Dis generis continuata dedit[i].

Sed Veneris mensem Grajo sermone notatum
Auguror: a spumis est dea nata maris[k].

Quo non livor abit? sunt qui tibi mensis honorem
Eripuisse velint invideantque Venus!
Nam, quia ver aperit tunc omnia densaque cedit
Frigoris asperitas fetaque terra parit;
Aprilem memorant ab aperto tempore dictum,
Quem Venus injecta vindicat alma manu[l].

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[e] Ovid, Fasti, i. 39.
[f] Ibid. iii. 71.
[g] Ibid. iii. 97.
[h] Ibid. iv. 23.
[i] Ibid. 57.
[k] Ibid. 61.
[l] Ibid. 85.

Sive dies suberit natalis, sive kalendæ
Quas Venerem Marti continuasse juvat[m].

Quæritis unde putem Majo data nomina mensi?
Non satis est liquido cognita caussa mihi[n].

Hinc sata Majestas: hos est dea censa parentes:
Quaque die partu est edita magna fuit[o].

Romulus hoc vidit; selectaque pectora Patres
Dixit: ad hos Urbis summa relata novæ.
Hinc sua majores posuisse vocabula Majo
Tangor, et ætati consuluisse suæ.
Et Numitor dixisse potest, Da Romule mensem
Hunc senibus: nec avum sustinuisse nepos[p].

Nec leve præpositi pignus successor honoris
Junius a juvenum nomine dictus habet[q].

At tu materno donasti nomine mensem
Inventor curvæ furibus apte fidis.
Nec pietas hæc prima tua est. septena putaris
Pleïadum numerum fila dedisse lyræ[r].

Annus erat brevior: nec adhuc pia Februa norant,
Nec tu dux mensum Jane biformis! eras.
Jam tamen exstincto cineri sua dona ferebant;
Compositique nepos busta piabat avi.
Mensis erat Majus, majorum nomine dictus,
Qui partem prisci nunc quoque moris habet[s].

Hic quoque mensis habet dubias in nomine caussas:
Quæ placeant positis omnibus ipse leges[t].

Ex illis fuit una sui germana mariti:
Hæc erat agnovi quæ stat in æde Jovis.
Horrueram tacitoque animum pallore fatebar;
Cum dea quos fecit sustulit ipsa metus.
Namque ait, O vates Romani conditor anni
Ause per exiguos magna referre modos,
Jus tibi fecisti numen cœleste videndi
Cum placuit numeris condere festa tuis.

[m] De Arte Amandi, i. 407.

[n] Fasti, v. 1–24.

[o] Ibid. 25–52.

[p] Ibid. 71: cf. 57.

[q] Ibid. 77.

[r] Ibid. 103: cf. 79–102: 107–110.

[s] Ibid. v. 423.

[t] Ibid. vi. 1–16. De Junio.

Ne tamen ignores vulgique errore traharis,
  Junius a nostro nomine nomen habet[u].

Nec tamen hunc nobis tantummodo præstat honorem
  Roma: suburbani dant mihi munus idem.
Inspice quos habeat nemoralis Aricia fastos,
  Et populus Laurens Lanuviumque meum.
Est illic mensis Junonius. inspice Tibur,
  Et Prænestinæ mœnia sacra deæ.
Junonale leges tempus. nec Romulus illas
  Condidit: at nostri Roma nepotis erat[w].

Finierat Juno. respeximus. Herculis uxor
  Stabat; et in vultu signa dolentis erant[x].

Ad propiora vocor. populum digessit ab annis
  Romulus, in partes distribuitque duas.
Hæc dare consilium pugnare paratior illa est;
  Hæc ætas bellum suadet at illa gerit.
Sic statuit, mensesque nota secrevit eadem:
  Junius est juvenum; qui fuit ante senum[y].

Venit Apollinea longas Concordia lauro
  Nexa comas, placidi numen opusque ducis.
Hæc ubi narravit Tatium fortemque Quirinum,
  Binaque cum populis regna coisse suis;
Et lare communi soceros generosque receptos—
  His nomen junctis Junius inquit habet[z].

ii. Martis Romani festæ venere Kalendæ:
  Exoriens nostris hinc erat annus avis[a].

iii. Sementem notus humificet, sit bruma nivalis,
Dum pater antiqui renovatur Martius anni[b].

Martius antiqui primordia protulit anni,
  Fœtiferum Aprilem vindicat alma Venus.
Majorum dictus patrum de nomine Majus,
  Junius ætatis proximus est titulo[c].

Martius et generis Romani præsul et anni
  Prima dabas Latiis tempora consulibus.
Æneadum genitrix vicino nomen Aprili
  Dat Venus: est Marti namque Aphrodita comes.

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[u] Ovid, Fasti, vi. 17–56.

[w] Ibid. 57–64.

[x] Ibid. 65–82.

[y] Ibid. 83–88.

[z] Ibid. 91–96.

[a] Tibullus, iii. i. 1–4.

[b] [illegible]ius, Edyllia, viii. 332. 12. Precatio Ausonii, consulis designati, Prid. Kal. Jan. Fascibus sumtis. (Dec. 31, A. D. 378.)

[c] Ausonius, Eclogæ, 376. De Mensibus Monosticha, 3.

Maja dea an major Maïi te fecerit ætas
  Ambigo, sed mensi est auctor uterque bonus.
Junius hunc sequitur duplici celebrandus honore,
  Seu nomen Juno sive Juventa dedit.

* * * * *

Nectuntur post hos numerumque ex ordine signant:
  September Bacchi munere prela rigans, &c[d].

iv. O kalendæ Martiæ! sicuti olim annorum volventium ita nunc æternorum auspices Imperatorum[e].

v. Quod ad singulorum dierum vocabula pertineat dixi. mensium nomina sunt aperta fere, si a Martio ut antiqui instituerunt numeres. nam primus a Marte, secundus, ut Fulvius Flaccus scribit et Junius Gracchus, a Venere, quod ea sit Ἀφροδίτη. cujus nomen ego antiqueis littereis quod nusquam inveni, magis puto dictum quod ver omnia aperit, Aprilem. tertius a majoribus Majus. quartus a junioribus Junius. dehinc quintus Quintilis; et sic deinceps usque ad Decembrem, a numero[f].

vi. Nomina decem mensibus antiquis Romulum fecisse Fulvius et Junius auctores sunt. et quidem duos primos a parentibus suis nominasse, Martium a Marte patre Aprilem ab Aphrodite id est Venere, unde majores ejus oriundi dicebantur. proximos duos a populo; Majum a majoribus natu Junium a junioribus: ceteros ab ordine quo singuli erant, Quintilem usque ad Decembrem perinde a numero. Varro autem Romanos a Latinis nomina mensium accepisse arbitratur. auctores eorum antiquiores quam Urbem fuisse satis argute docet. itaque Martium mensem a Marte quidem nominatum credit, non quia Romuli fuerit pater, sed quod gens Latina fuerit bellicosa. Aprilem autem non ab Aphrodite sed ab aperiendo: quod tunc fere cuncta gignantur, et nascendi claustra aperiat natura. Maium vero non a majoribus sed a Maia nomen accepisse, quod eo mense tam Romæ quam antea in Latio res divina Maiæ fiat et Mercurio. Junium quoque a Junone potius quam junioribus, quod illo mense maxime Junoni honores habeantur. Quintilem quod loco apud Latinos fuerit quinto, item Sextilem, ac deinceps ad Decembrem a numeris vocatos[g].

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[d] Ausonius, Eclogæ, 377. De Mensibus Disticha, 5. Cf. Fabricii Menologium, p. 95–128.

[e] Panegyrici Veteres, v. Eumenii, Constantio Cæsari dictus, cap. iii. 1. Cf. Gregory of Nyssa, Opp. ii. 205 B. De xl. Martyribus.

[f] Varro, De Lingua Lat. v. p. 60.

vii. Hæc fuit Romuli ordinatio; qui primum anni mensem genitori suo Marti dicavit. quem mensem anni primum fuisse vel ex hoc maxime probatur, quod ab ipso Quintilis quintus est; et deinceps pro numero nominabantur. . . . . secundum mensem nominavit Aprilem, ut quidam putant cum aspiratione, quasi Aphrilem, a spuma, quam Græci ἀφρὸν vocant, unde orta Venus creditur. et hanc Romuli fuisse asserunt rationem, ut primum quidem mensem a patre suo Marte, secundum ab Æneæ matre Venere, nominaret; et hi potissimum anni principia servarent a quibus esset Romani nominis origo . . . .

Sed Cincius in eo libro quem de Fastis reliquit ait imperite quosdam opinari Aprilem mensem antiquos a Venere dixisse; cum nullus dies festus nullumque sacrificium insigne Veneri per hunc mensem institutum sit: sed ne in carminibus quidem Saliorum Veneris ulla ut ceterorum cœlestium laus celebretur. Cincio etiam Varro consentit, affirmans nomen Veneris ne sub regibus quidem apud Romanos vel Latinum vel Græcum fuisse; et ideo non potuisse mensem a Venere nominari. sed cum fere ante æquinoctium vernum triste sit cœlum et nubibus obductum, sed et mare navigantibus clausum, terræ etiam ipsæ aut aqua aut pruina aut nivibus contegantur; eaque omnia verno, id est hoc, mense aperiantur, arbores quoque nec minus cetera quæ continet terra aperire se in germen incipiant: ab his omnibus mensem Aprilem dici merito credendum, quasi Aperilem; sicut apud Athenienses Ἀνθεστηριὼν idem mensis vocatur ab eo quod hoc tempore cuncta florescant[h]. non tamen negat Verrius Flaccus hoc die postea constitutum ut matronæ Veneri sacrum facerent: cujus rei caussam quia huic loco non convenit prætereundum est.

Maium Romulus tertium posuit: de cujus nomine inter auctores lata dissensio est. nam Fulvius Nobilior in Fastis quos in æde Herculis Musarum (Musagetæ) posuit Romulum dicit, postquam populum in majores junioresque divisit, ut altera pars consilio altera armis rempublicam tueretur, in honorem utriusque partis hunc mensem Majum sequentem Junium vocasse. sunt qui hunc mensem ad nostros Fastos a Tusculanis transisse commemorent: apud quos nunc quoque vocatur deus Majus, qui est Juppiter, a magnitudine scilicet ac majestate dictus. Cincius mensem nominatum putat a Maja quam Vulcani dicit uxorem: argumentoque utitur quod Flamen Vulcanalis Kalendis Maiis huic deæ rem divinam facit. sed Piso uxorem Vulcani Majestam non Majam dicit vocari. contendunt alii Majam Mercurii matrem mensi nomen dedisse; hinc maxime probantes, quod hoc mense mercatores omnes Majæ pariter Mercurioque sacrificant. affirmant quidam, quibus Cornelius Labeo consentit, hanc Majam cui mense Majo res divina celebratur terram esse, hoc adeptam nomen a magnitudine . . . .

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[g] Censorinus, De Die Natali, xxii.

[h] Cf. Saturnalia, i. 21. 313, where these natural peculiarities of the season are assigned as the reason why April was dedicated to Venus.

Junius Majum sequitur, aut ex parte populi ut supra diximus nominatus; aut ut Cincius arbitratur quod Junonius apud Latinos ante vocitatus, diuque apud Aricinos Prænestinosque hac appellatione in Fastos relatus sit: adeo ut sicut Nisus in commentariis Fastorum dicit apud majores quoque nostros hæc appellatio mensis diu manserit; sed post detritis quibusdam litteris ex Junonio Junius dictus sit. nam et ædes Junoni Monetæ Kalendis Juniis dedicata est. nonnulli putaverunt Junium mensem a Junio Bruto qui primus Romæ consul factus est nominatum, quod hoc mense, id est Kalendis Juniis, pulso Tarquinio sacrum Carnæ deæ in Cœlio monte voti reus fecerit.

Sequitur Julius, qui, cum secundum Romuli ordinationem Martio anni tenente principium Quintilis a numero vocaretur, nihilominus tamen etiam post præpositos a Numa Januarium ac Februarium retinuit nomen; cum non videretur jam quintus esse sed septimus . . . . Augustus deinde est qui Sextilis ante vocatus est . . . . mensis September principalem sui retinet adpellationem . . . . cautio postea principum ceterorum diri ominis infausta vitantium mensibus a Septembri usque ad Decembrem prisca nomina reservavit[i].

viii. Martius ab Latinorum . . . landi itaque apud Albanos et plerosque . . . . ulos La . . . os idem fuit ante conditam

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[i] Macrobius, Saturn. i. 12, 255.

Romam[k]: which the editor restores conjecturally as follows: Martius ab Latinorum deo Marte. appellandi itaque apud Albanos et plerosque populos Latii mos idem fuit. The same Fasti add; Ut a . . tem alii cr . . nt quod ei sacra fiunt hoc mense: i. e. (as the editor corrects it) Ut autem alii credunt, quod ei sacra fiunt hoc mense. The opinion of Verrius Flaccus however is clear from this fragment even in its present state; viz. that he thought the name of Martius common to the Alban and to the Latin calendar as much as to the Roman; and probably derived to the latter from the former. *De mense Aprili:* . . . Veneri quod ea cum . . . . AE regis . . . . vm a quo P. R. ortus e . . . sse quia fruges flores animaliaque ac maria et terræ aperiuntur: restored by the editor as follows: Aprilis a Venere, *seu* sacer Veneri, quod ea cum Anchise parens fuit Æneæ regis, qui genuit Julum, a quo populus Romanus ortus est. alii putant ita appellatum esse quia &c.

ix. Romani initio annum decem mensibus computaverunt a Martio auspicantes: . . . . maximeque hunc mensem principem testatur fuisse quod qui ab hoc quintus erat Quinctilis dictus est, deinde numero decurrente December sollemnem circuitum finiebat[l].

x. Martius mensis initium anni fuit et in Latio et post Romam conditam, eo quod gens erat bellicosissima. cujus rei testimonium est quod posteriores menses qui annum finiunt a numero adpellati ultimum habent Decembrem[m]—Mæsius lingua Osca mensis Majus[n]—Majus mensis in compluribus civitatibus Latinis ante urbem conditam fuisse videtur: qua ex caussa utrum a majoribus ut Junius a junioribus dictus sit; an a Maja, quod Mercurio filio ejus res divinæ . . . fiant sollemnes; an quod ipsi deæ in multis Latinis civitatibus sacrificia fiebant (ipso mense)[o] . . . —Junium mensem dictum putant a Junone. iidem ipsum dicebant Junonium et Junonialem[p].

xi. *Ῥωμαῖοι δὲ ὅτι μὲν δέκα μῆνας εἰς τὸν ἐνιαυτὸν ἔταττον οὐ δώδεκα τεκμήριον ἡ τοῦ τελευταίου προσηγορία· δέκατον γὰρ αὐτὸν*

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[k] Verrius Flaccus, Apud Foggini, p. 18. 19. In Martio.

[l] Solinus, i. 34.

[m] Festus, De Significatione Verborum, xi. 228. 11. Martius.

[n] Ibid. 212. 6. Maesius.

[o] Ibid. 215. 6. Majus.

[p] Ibid. ix. 196. 1. Junium.

ἄχρι νῦν καλοῦσιν. ὅτι δὲ τὸν Μάρτιον πρῶτον ἡ τάξις ἐκδηλοῖ. τὸν γὰρ ἀπ᾽ ἐκείνου πέμπτον ἐκάλουν πέμπτον, ἕκτον δὲ τὸν ἕκτον, καὶ τῶν ἄλλων ἐφεξῆς ὁμοίως ἕκαστον. ἐπεὶ τὸν Ἰανουάριον καὶ τὸν Φεβρουάριον πρὸ τοῦ Μαρτίου τιθεμένοις συνέβαινεν αὐτοῖς τὸν εἰρημένον μῆνα πέμπτον μὲν ὀνομάζειν ἕβδομον δ᾽ ἀριθμεῖν. ἄλλως δὲ καὶ λόγον εἶχε τὸν Μάρτιον Ἄρεϊ καθιερωμένον ὑπὸ τοῦ Ῥωμύλου πρῶτον ὀνομάζεσθαι· δεύτερον δὲ τὸν Ἀπρίλιον, ἐπώνυμον ὄντα τῆς Ἀφροδίτης, ἐν ᾧ θύουσί τε τῇ θεῷ καὶ ταῖς καλάνδαις ἐστεφανωμέναι αἱ γυναῖκες μυρσίνῃ λούονται. τινὲς δ᾽ οὐ διὰ τὴν Ἀφροδίτην τὸν Ἀπρίλιόν φασιν, ἀλλ᾽ ὥσπερ ἔχει τοὔνομα ψιλὸν Ἀπρίλιον κεκλῆσθαι τὸν μῆνα, τῆς ἐαρινῆς ὥρας ἀκμαζούσης ἀνοίγοντα καὶ ἀνακαλύπτοντα τοὺς βλαστοὺς τῶν φυτῶν· τοῦτο γὰρ ἡ γλῶσσα σημαίνει. τῶν δ᾽ ἐφεξῆς τὸν μὲν Μάϊον καλοῦσιν ἀπὸ Μαίας· Ἑρμῇ γὰρ ἀφιέρωται· τὸν δὲ Ἰούνιον ἀπὸ τῆς Ἥρας. εἰσὶ δέ τινες οἱ τούτους ἡλικίας ἐπωνύμους εἶναι λέγοντες, πρεσβυτέρας καὶ νεωτέρας· Μαϊώρης γὰρ οἱ πρεσβύτεροι παρ᾽ αὐτοῖς Ἰουνιώρης δὲ οἱ νεώτεροι καλοῦνται[q]. τῶν δὲ λοιπῶν ἕκαστον ἀπὸ τῆς τάξεως ὥσπερ ἀριθμοῦντες ὠνόμαζον πέμπτον ἕκτον ἕβδομον ὄγδοον ἔννατον δέκατον[r]—Διὰ τί τὸν Ἰανουάριον μῆνα νέου ἔτους ἀρχὴν λαμβάνουσι; τὸ γὰρ παλαιὸν ὁ Μάρτιος ἠριθμεῖτο πρότερος, ὡς ἄλλοις τε πολλοῖς δῆλόν ἐστι τεκμηρίοις, καὶ μάλιστα τῷ τὸν πέμπτον ἀπὸ τοῦ Μαρτίου πέμπτον καὶ τὸν ἕκτον ἕκτον ὀνομάζεσθαι, καὶ τοὺς ἄλλους ἐφεξῆς ἄχρι τοῦ τελευταίου, ὃν Δεκέμβριον καλοῦσιν, ἀπὸ τοῦ Μαρτίου δέκατον ἀριθμούμενον[s].

xii. Novum ver ideo ait quia anni initium mensis est Martius. et sciendum est decem tantum menses fuisse apud majores. Martium autem anni principium habere voluerunt propter Martem suæ gentis auctorem; quod multis firmatur auctoribus . . . . Atta; Annum novum voluerunt esse primum mensem Martium. et alibi: Majores Martium primum habuerunt. Aprilis autem dictus est quasi terras tepore aperiens: Majus a Maia: Junius a Junone: quamquam alii a majoribus et junioribus hos duos menses velint esse nominatos. nam antea populus Romanus in centurias juniorum et seniorum divisus fuerat. reliqui jam a numero nominabantur, Quintilis Sextilis September October November December[t]—Mense Januario, qui est penultimus. nam ut etiam in primo diximus

[q] Cf. Quæstiones Romanæ, lxxxvi.

[r] Plutarch, Numa, xix. cf. xviii.

[s] Ibid., Quæstiones Romanæ, xix.

[t] Servius, ad Georg. i. 43. Vere novo. cf. ad i. 217.

. . . a Martio mense inchoabat annus apud majores[u] —Hic extremum annum sub Aquarii sidere collocat: ut quia primus nascentis anni dies ab urbe condita Kal. Martiis fuit inde Februarius ultimus anni haberetur[w].

xiii. *Ἀρχὴν δὲ ἐνιαυτοῦ δίδωσι Ῥωμύλος τὸν Μάρτιον μῆνα πρὸς τιμὴν Ἄρεος· ἐξ αὐτοῦ γὰρ αὐτὸν γενέσθαι λόγος· δέκα μόνοις μησίν*[x] —*Καὶ ἐπὶ μὲν Ῥωμύλου ὁ νῦν καλούμενος Μάρτιος μὴν πρῶτος ἦν*[y]—*Ὅτι τρεῖς ἀρχὰς ἦγον Ῥωμαῖοι τοῦ ἐνιαυτοῦ. μίαν μὲν ἱερατικὴν*[z], *κατὰ τὸν Ἰανουάριον, αὐξανούσης ἤδη τῆς ἡμέρας· δευτέραν δὲ κατὰ τὴν τοῦ Μαρτίου πρώτην ἣν πάτριον εἶχον, καθ' ἣν καὶ τὰ ὅπλα ἔθος αὐτοῖς κινεῖν*[a]—*Τὸν Ἰούλιον μῆνα πέμπτον μὲν ἄν τις ἀπὸ τοῦ πολιτικοῦ ἕβδομον δὲ ἀπὸ τοῦ ἱερατικοῦ λάβοι ἐνιαυτοῦ· ἀπὸ γὰρ τοῦ Μαρτίου (ἐκεῖνος δὲ ἦν ὁ παρὰ Ῥωμύλου τεθεὶς εἰς ἀρχὴν τοῦ πολιτικοῦ ἐνιαυτοῦ) πέμπτος ἐστίν. ὅθεν καὶ Κυντίλιος τὸ πρὶν ὠνομάζετο· ἕβδομος δὲ ἀπὸ τοῦ Ἰανουαρίου· ἱερατικὸς δὲ οὗτος κατὰ τὸν Νουμᾶν*[b]—*Οἱ δὲ Ῥωμαῖοι Ἀπρίλιον αὐτὸν ὡσανεὶ Ἀπερίλιον (οἱονεὶ ἀνοικτικὸν τοῦ καιροῦ) φασι*[c]—*Μετὰ γὰρ θεοὺς οὐχ ἧττονα τιμὴν τοῖς ἑαυτῶν προγόνοις εἰσέφερον οἱ πάλαι, Μάϊον δὲ μῆνα ἐκ τῆς ἐκείνων τιμῆς ὠνόμασαν, πατρίως καλοῦντες τὴν τιμήν· οἱ δὲ ἀπὸ τῆς Μαΐας τῆς Ἄτλαντος, κ̓, τ. λ.*[d]—*Ἕπεται δὲ ἀπὸ μὲν τοῦ ἦρος ὁ ἕκτος ἀπὸ δὲ τῆς λεγομένης αὐξιφωτίας ὁ ὄγδοος. ὅτι δὲ ἕκτος ἀπὸ τοῦ Μαρτίου ἐξ αὐτῆς ἐστὶ λαβεῖν τῆς ἀρχαίας τοῦ μηνὸς τούτου προσηγορίας. Σεξτίλιος γὰρ μετὰ τὸν Κυντίλιον ὠνομάζετο. ὅθεν οἱ μετ' αὐτὸν ἄχρι τοῦ δεκάτου οὐ κυρίαν ἀλλὰ τὴν ἐξ ἀριθμῶν ἕλκουσι προσηγορίαν*[e].

xiv. Martius appellatur propter Martem Romanæ gentis auctorem, vel quod eo tempore cuncta animantia ad marem agantur, et ad concumbendi voluptatem: idem appellatur et mensis Novorum, quia anni initium mensis est Martius—Aprilis pro Venere dicitur, quasi Aphrodilis. Græce enim *Ἀφροδίτη* Venus dicitur. vel quia hoc mense omnia aperiuntur in florem quasi Aperilis—Maius dictus a Maia matre Mercurii, vel a majoribus natu, qui erant principes reipublicæ.

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[u] Ibid. iii. 303.

Ad medium conversa diem cum frigidus olim
Jam cadit extremoque irrorat Aquarius anno.

[w] Philargyrius, ad Georg. iii. 304.

[x] Lydus, De Mensibus, i. 14. 7. l. 17.

[y] Ibid. 16. 9. l. 12.

[z] Ibid. cf. iv. 1.

[a] Ibid. iii. 15. 39. l. 15.

[b] Ibid. iv. 63. 34. 15.

[c] Ibid. 44. 80. l. 1.

[d] Ibid. 52. 87. 15.

[e] Ibid. 71. 101. l. 1. cf. iv. 78. 105. l. 3. De Septembri: 92. 109. 1. De Novembri. Also Malela, vii. 172. 20—180. 13. Chron. Pasch. 204. 2—213. 4.

nam hunc mensem majoribus sequentem vero minoribus Romani consecraverunt, unde et Junius dicitur. ante enim populus in centurias seniorum et juniorum divisus erat—Julius vero et Augustus de honoribus hominum, Julii et Augusti Cæsarum, nuncupati sunt. nam prius Quintilis et Sextilis vocabantur. Quintilis quia quintus erat a Martio quem principem anni testantur esse Romani, Sextilis similiter quod sextus sit—September nomen habet a numero et imbre, quia septimus est a Martio et imbres habet. sic et October November atque December ex numero et imbribus acceperunt vocabula, quem numerum decurrentem December finit, pro eo quod denarius numerus præcedentes numeros claudit[f].

SECTION IX.—*Observations on the preceding Testimonies.*

It appears from the above collection of statements on this particular question, that there was never any difference of opinion respecting the place of March in the ancient calendar; nor about the etymology of the name of that month as derived from Mars, (either the tutelary genius of a warlike race like the Prisci Latini, or the reputed father of Romulus the founder of the city,) but only on *this* point; whether such a month under such a name was peculiar to the Roman Calendar at first or not; and whether Romulus was the author of that name himself, or borrowed it from some of the calendars of his neighbours.

It appears too that there was never any difference of opinion about the place of April in the order of the months of the ancient calendar, only about the etymon and meaning of the name itself. And on this question too it would seem as if there were never more than two opinions; one which derived the name from a Greek root, ἀφρὸς or Ἀφροδίτη, and supposed it to have been given to this month in honour of Venus; another which derived it from *Aperio*, and considered it to have been bestowed on this month because the first symptoms of spring appeared in this month; because nature, after lying torpid and shut up during the winter, began to revive and to expand itself in this month; because the flowers, the leaves, the infant productions of the vegetable and of the animal world first reappeared in this month. The weight of authority is decidedly in favour of this explanation: nor can there be any reasonable doubt in our opinion that such is the true account of the origin and meaning of the name of the second month in the calendar of Romulus. Consequently the name itself is or ought to be a test and criterion of the proper place of the month in the natural year, for the climate of Italy at least; just as much at the name of the month Anthesterion (which Macrobius compares in this respect with the Aprilis of Romulus) of the natural site of that month for the climate of Attica: though the site of Anthesterion in the Attic calendar of Macrobius' time was not exactly the same which it occupied at first.

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[f] Isidorus, Origg. v. 33. 41. cf. De Natura Rerum, 247. cap. iv.

It appears too that there was never any difference of opinion about the order of the month called Maius in the calendar of Romulus, or about that of the month called Junius; only about the etymon and the explanation of each of these denominations also: the former of which some of our authorities derive from Mæsius an old Oscan term; some from Majus, a supposed name of Jupiter; some from Majestas; some from Maja, as another name for the earth, or as the same with Majesta, the reputed wife of Vulcan, or with the Hellenic conception of Maia the daughter of Atlas and mother of Mercury: the latter, in like manner, some would derive from Juno, as if it were only an abbreviation of Junonius; some from the junction of the Sabines and Romans, some from the expulsion of the kings in this month, and from the name of Junius Brutus, the first consul. Such differences of opinions as these do not materially concern the questions which we are considering at present. It is observable however that, among the explanations of the names of these two months in particular, there are two, which we have not yet alluded to; one of that of Maius, which derived it *A Majoribus natu*, and another of that of Junius, which derived it *A Junioribus natu*: each of which supposes these names to have been given originally to those two months, in order to represent and express the most comprehensive division of the Roman community which could have been made at first, viz. into the *Majores* and the *Minores natu;* the former including the *Patres,* the latter the *Plebs* or *Plebes.* This explanation of these two names in particular, besides being the best supported, in our opinion is the most probable and the most legitimate of all *. A distinction like that in the names of these two months, referred to the circumstances of the time, would be agreeable to the matter of fact, and might have been founded upon it: and moreover would be only in character with the simplicity of that early period, and with the respect paid to age among the ancient Romans from the first. But in this case the names of the months themselves respectively would be an argument of their place and order relatively to one another. Maius as the representative of the *Majores natu,* and as called after them, must have taken precedence of Junius, denominated from the *Juniores,* or *Minores natu.*

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* It will be observed that, among those who appear to have approved of this particular explanation of these two names, Varro is one; according at least to the testimony produced from his treatise De Lingua Latina, the only one of his numerous works, of which more than a fragment has descended to posterity. If Censorinus is to be believed, he must have proposed other explanations of each, in some other of his works; but as these explanations appear on comparison to have been different, we must suppose that he had renounced the one when he proposed the other. The question then would be, which of them was to be considered his last or most deliberate opinion on this subject?

If these other explanations were contained in his Antiquities, the treatise De Lingua Latina was later than the Antiquities; which are referred to in that work itself, v. 55 and 56. The date of the Liber De Lingua Latina comes between the time of the celebration of Julius Cæsar's four Triumphs, B. C. 46, when the cameleopard was first exhibited at Rome, and became known to the Romans by that name (De Lingua, iv. 29. Dio xliii. 23. Pliny, H. N. viii. 27: Solinus, xxx. § 20), and the change of the name of Quinctilis into that of Julius, B.C. 44; for this month was still called Quinctilis when Varro was writing his treatise De Lingua Latina, v. 64. Cf. also De Lingua, iv. 46—the various closings of the Temple of Janus: and iv. 80—which makes it 700 years until then from the institution of the Salii by Numa: 700 however only in round numbers. If the statement which occurs v. 55 respecting the last five days of February in an intercalary year is to be literally construed; the actual date of the work must have been B.C. 46, before the Julian correction itself, which took place that year.

SECTION X.—*Confirmation of the above accounts by some other considerations, both general and particular.*

First, it is a general confirmation of the preceding accounts of the names and order of the months in the calendar of Romulus, that when two months were added to the year by Numa, (one of them introduced at the beginning and the other at the end,) by neither of these additions was any change made in the preexisting order of the months, relatively to each other. It follows that the order of the months in the calendar of Numa, from January exclusive to February exclusive, must have been the same with that in the calendar of Romulus, from March inclusive to December inclusive. This order in the calendar of Numa is known; and is attested even by that of the Julian calendar at present: and it is, and always was, the same which is represented in the preceding statements as that of the calendar of Romulus from the first.

Again, facts and observances among the Romans from the earliest to the latest times are upon record, some of them peculiar to the month of Martius and others to that of December; the former pointing to Martius as if it was still the beginning of the year, and the latter to December as if it was still the end, long after the time when either of those things *de facto* was the case. The only explanation of such apparent anomalies between customs still kept up and their first and proper meaning is that they took their rise when Martius was actually the first month and December was actually the last; and that they were never laid aside when either of those things ceased to be the case, nor were ever corrected or modified in any manner, to accommodate them to the change of cirumstances.

Thus, with regard to the month of Martius; its claim to be considered the first month of the calendar and the beginning of the year was attested by a variety of usages, (of a ritual kind too,) peculiar to this month, and even to the first day of this month, the Kalends of March themselves.

i. Neu dubites primæ fuerint quin ante Kalendæ
Martis, ad hæc animum signa referre potes.

Laurea flaminibus quæ toto perstitit anno
  Tollitur, et frondes sunt in honore novæ.
Janua nunc regis posita viret arbor Phœbi:
  Ante tuas fit idem curia prisca! fores.
Vesta quoque ut folio niteat velata recenti
  Cedit ab Iliacis laurea cana focis.
Adde quod arcana fieri novus ignis in æde
  Dicitur, et vires flamma refecta capit.
Nec mihi parva fides annos hinc îsse priores
  Anna quod hoc cœpta est mense Perenna* coli.
Hinc etiam veteres initi memorantur honores
  Ad spatium belli perfide Pœne! tui[g].

ii. Hæc fuerunt olim. sed tu jam mitis Apollo
  Prodigia indomitis merge sub æquoribus.
Et succensa sacris crepetet bene laurea flammis,
  Omine quo felix et sacer annus eat.
Laurus ubi bona signa dedit, gaudete coloni!
  Distendet spicis horrea plena Ceres.
Oblitus et musto feriet pede rusticus uvas,
  Dolia dum magni deficiuntque lacus[h].

iii Romani initio annum decem mensibus computaverunt, a Martio auspicantes, adeo ut ejus die prima de aris Vestalibus ignes accenderent[i], et mutarent veteribus virides laureas, senatus et populus comitia agerent, matronæ servis suis cœnas ponerent, sicut Saturnalibus domini; illæ ut per honores promtius obsequium provocarent, hi quasi gratiam repensarent perfecti laboris[k].

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* The feast day of Anna Perenna was the Ides of March[1]. Ovid's inference of the place of March in the order of the year was founded of course on *this* coincidence; viz. that Anna Perenna, id est *per annum*, should have begun to be celebrated on the Ides of March. Who this Anna Perenna was is doubtful. Ovid gives what he calls the true account of her[2]. But there was a tradition also among the Romans, (at least an opinion,) in Ovid's time, that she was Anna, the sister of Dido; of whom the Romans of after time, we may presume, could have known nothing except from the Æneid of Virgil[3]. Silius Italicus adopts this tradition[4]. He concludes his account of this Anna, the sister of Dido, as if she was the Anna Perenna of the calendar.

Ex illo primis anni celebrata diebus
Per totam Ausoniam venerando numine culta est.

Which also recognises the Ides of March as the beginning of the year, or near the beginning, at that time.

[g] Ovid, Fasti, iii. 133–148.

[h] Tibullus, ii. v. 80.

[i] Of Dionys. Hal. ii. 66, 67.

[1] Ovid, Fasti, iii. 523. cf. the Farnesian and Vatican calendar, apud Foggini, in the Ides of March.

[2] Fasti, iii. 661–674.

[3] Cf. Fasti, iii. 545–654.

[4] viii. 200. cf. 43–201.

iv. Hujus etiam (sc. Martii) prima die ignem novum Vestæ aris accendebant, ut incipiente anno cura denuo servandi novati ignis inciperet. eodem quoque ingrediente mense tam in regia curiisque atque flaminum domibus laureæ veteres novis laureis mutabantur. eodem quoque mense et publice et privatim ad Annam Perennam sacrificatum itur, ut annare perennareque commode liceat. hoc mense mercedes exsolvebant magistris quas completus annus deberi fecit: comitia auspicabantur: vectigalia locabant: et servis cœnas apponebant matronæ ut domini Saturnalibus; illæ ut principio anni ad promtum obsequium honore servos invitarent, hi quasi gratiam perfecti operis exsolverent[l].

Macrobius adds to these another observance not indeed of the people of Rome, but of a neighbouring one, the people of Laurentum; the calendar of which he evidently supposes, so far as this custom and its origin were concerned, to have been the same with that of the Romans: Quod etiam Laurentes patriis religionibus servant... sed et omnibus Kalendis a mense Martio ad Decembrem huic deæ (id est Junoni) Kalendarum die supplicant[m]: for this necessarily implies that the first month in their year once was March and the last was December, as in the Roman.

v. *Ὅτι δὲ πάτριον ἀρχὴν ἐνιαυτοῦ τὸν Μάρτιον οἱ Ῥωμαῖοι παρέλαβον δῆλον καὶ ἀπὸ τοῦ τὰς λεγομένας παρ' αὐτοῖς ματρώνας, τουτέστι τὰς εὐγενίδας, τοὺς οἰκέτας ἑστιᾷν, καθάπερ ἐν τοῖς Κρονίοις τουτὶ πράττειν ἔθος ἦν τοὺς κεκτημένους*[n].

Again, with regard to the month of December, as originally the last in the year; *Διὰ τί*, says Plutarch[o], *τῶν ἄλλων Ῥωμαίων ἐν τῷ Φεβρουαρίῳ μηνὶ ποιουμένων χοὰς καὶ ἐναγισμοὺς τοῖς τεθνηκόσι, Δέκιμος Βροῦτος (ὡς Κικέρων ἱστόρηκεν) ἐν τῷ Δεκεμβρίῳ τοῦτ' ἔπραττεν; ἦν δὲ οὗτος ὁ Λυσιτάνειαν ἐπελθὼν καὶ πρῶτος ἐπεκεῖνα στρατῷ διαβὰς τὸν τῆς Λήθης ποταμόν. πότερον, ὥσπερ ἡμέρας ληγούσης καὶ μηνὸς φθίνοντος εἰώθασιν ἐναγί-*

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[k] Solinus, i. 35.

[l] Macrobius, Saturn. i. 12. 255.

[m] Ibid. 15. 275.

[n] Lydus, De Mensibus, iii. 15. 40, l. 4.

[o] Quæstiones Romanæ, xxxiv.

ζειν οἱ πολλοὶ, λόγον ἔχει καὶ τοῦ ἐνιαυτοῦ καταστρέφοντος ἐν τῷ τελευταίῳ μηνὶ τιμᾶν τοὺς τεθνηκότας * ;

Cicero's testimony to the rule of Decimus Brutus in this respect, alluded to by Plutarch, we apprehend to be that which is still found in his dialogue De Legibus[p]: Februario autem mense qui tunc extremus anni erat mortuis parentari voluerunt. quod tamen D. Brutus, ut scriptum a Sisenna

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* Decimus Brutus (Decimus Junius Brutus, whom Velleius Pat. styles A. Brutus [1]) surnamed Callaïcus appears in the Fasti, consul along with P. Cornelius Scipio Nasica Serapio U. C. 616 of Varro B. C. 138 [2]. He obtained this surname of Callaïcus (more properly Gallæcus) from his victory over the Callaïci or Gallæci [3], a tribe of Lusitanians in Spain; which success seems to have been gained two years after his consulship, U. C. 618 B. C. 136, when he was serving Pro consule [4]: on which occasion too he crossed the river called Λήθης ποταμὸς, or Oblivionis flumen [4]. For this victory he celebrated a triumph in the same year as Scipio the younger for the reduction of Numantia; viz. U. C. 622 B. C. 132 [5]: though the date of this triumph is wanting in the Fasti Triumphales at present. And after this too he was principally instrumental to the success of the consul Sempronius Tuditanus, U. C. 625 B. C. 129, De Iapudibus [6]; for which the latter celebrated a triumph, (still extant in the Fasti,) Kal. Oct. the same year.

It appears from Valerius Maximus [7] that this Brutus was the patron of the poet Accius or Attius. Vester etiam D. Brutus M. filius, says Cicero also [8], ut ex familiari ejus L. Attio poeta sum audire solitus, et dicere non inculte solebat, et erat cum litteris Latinis tum etiam Græcis ut temporibus illis eruditus—Clara etiam per idem ævi spatium fuere ingenia in togatis Afranii in tragœdiis Pacuvii atque Attii [9]. It may be inferred from Cicero [10] that Accius was living U.C. 650 B.C. 104. Mr. Clinton dates his birth, B. C. 170, and he was 64 years old at the birth of Cicero. We learn from Pliny, H. N. xxxiv. 10, that though Accius (L. Accius) was a very little man, he erected a statue to himself in the Ædes Camenarum which represented a large man.

[p] ii. 21. Ernesti indeed considers the first part of this passage down to *doctum hominem* not to be the genuine words of Cicero. The latter part alone would serve for the purpose of our argument.

[1] ii. 5.

[2] Cf. Livy, Epit. lv.

[3] Livy, Ep. lvi.

[4] Livy, Ep. lv. lvi. Orosius, iv. v. 14. Jerome, Thes. Temporum, Ol. 159. 4. Frontinus, Strateg. iv. 1. 20. Florus, ii. 17, 12. Pliny, H. N. iv. 35. 233.

[5] Eutropius, iv. 8. Livy, Epitome, lix. Plutarch, Tiberius Gracchus, xxi.

[6] Livy, Epitome, lix.

[7] viii. xiv. 8. De Cupiditate Gloriæ. Cf. also Cicero, Oratt. xxvi. Pro Archia Poeta, 11.

[8] Brutus, 28.

[9] Vell. Pat. ii. 9: cf. A. Gellius, xiii. 2: xvii. 21.

[10] Oratt. xliii. Philippica, i. 15, 36.

est*, Decembri facere solebat ... (nam Sisennam video caussam cur is vetus institutum non servarit ignorare. Brutum autem majorum institutum temere neglexisse non fit mihi verisimile, doctum hominem sane, cujus fuit Accius perfamiliaris. sed mensem credo extremum anni ut veteres Februarium sic hic Decembrem sequebatur.

It may be questioned however, from the tenor of these observations, whether Cicero himself understood the true reason of this custom, peculiar to Brutus. It is plainly implied by his concluding remark that he thought February was the last month in the year long before December was so; and that D. Brutus considered December in his own time to stand in the place of February in former times. But December in reality was the last month in the calendar when there was yet no February; and if D. Brutus was the learned man which Cicero supposes him to have been, and was so well versed in the antiquities of his own country, he was probably aware of that fact: from which he could not but infer that, if the Parentalia on a large scale had been originally assigned to the last month in the calendar, they must have been appropriated to December; in which case, on the score of ancient prescription and of primitive usage, no month could have a better right to be considered the proper Parentalial month than December.

The rule then which he chose to observe in this respect, different as it was from the common practice, is probably to

* Sisenna was a contemporary of both the above. Velleius Paterculus[10]: Historiarum auctor jam tum Sisenna erat juvenis; sed opus belli civilis Sullani post aliquot annos ab eo seniore editum est. vetustior Sisenna fuit Cœlius, æqualis Sisennæ Rutilius Claudiusque Quadrigarius et Valerius Antias. It is well known that Sisenna's historical works gave occasion to Sallust's. Cf. the Bellum Jugurthinum, cap. c.

From Festus, xvii. 491. 7. Scrupi, we learn that his proper style was L. Cornelius Sisenna. A L. Sisenna is mentioned by Cicero in Verrem[11], as a friend of Verres', B. C. 70. Asconius[12] gives us to understand that this was Sisenna the historian. Cicero classes him in point of time with Macer, and next to Cœlius[13]. Cf. Mr. Clinton's Fasti Romani, ad ann. A. Ch. N. 87.

[10] ii. 9: cf. Cicero, Brutus, 6: De Divin. i. 44. Brutus, 64: 74.

[11] Oration. ix. In Verrem iv. 15.

[12] In Orat. Pro Cornelio, p. 103.

[13] De Legibus, i. 2.

be explained on this principle; viz. that he thought it right to keep the Parentalia still in the same month in which the ancient Romans did so. This custom of his would prove nothing of the site of the piacular month in the calendar of Numa or in that of the Decemvirs, in both which that month was February; but it was a very good argument of the site of that month in the calendar of Romulus, or of D. Brutus' opinion at least concerning the site of that month originally, as both the last in the year and as the month of December also.

Plutarch indeed proceeds[q]: Ἢ τοῦτο, *μόνον* Βροῦτον *ἐναγίζειν ἐν τῷ μηνὶ τούτῳ, καθόλου ψεῦδός ἐστι· καὶ γὰρ τῇ Λαρεντίᾳ ποιοῦσι τὸν ἐναγισμὸν ... τοῦ Δεκεμβρίου μηνός*[r]. And this indeed was true; for the Laurentalia, or Larentalia, as they were called, (the Parentalia to the manes or memory of Acca Laurentia, or Larentia,) were celebrated in December, six days after the Saturnalia, on the x Kal. Januarias[s]. Laurentalia ... ab Acca Laurentia: cui sacerdotes nostri publice parentant sexto die (from the Saturnalia) qui atra dicitur[t]. But this Acca Laurentia was the reputed nurse of Romulus and Remus[u]. This ceremony in honour of her manes was probably as old as any thing of that kind in the calendar; and very possibly was consigned to the calendar in the time of Romulus himself. In that case the ceremony itself was a standing memorial that the proper Parentalial month in the Roman calendar from the first was December; and consequently, if that month was necessarily the last in the year, that December was originally the last month *.

* These various customs and observances, some of a religious others of a civil kind, the antiquity of which thus went back to the foundation of Rome, are competent to prove that the month of March once stood at the beginning of the year, and the month of December at the end.

It may be doubtful however of some of them, whether they justify the whole of the inferences founded upon them. Such for example as the

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[q] Loco citato.

[r] Cf. Quæstio xxxv.

[s] Kalendarium Prænestinum, et Maffæanum, apud Foggini.

[t] Varro, De Lingua Lat. v. 58: cf. Festus, x. 200. 3. Laurentalia. A. Gellius, vi. 7. Macrobius, Saturn. i. 10. 241. Lactantius, i. 20.

[u] Livy, i. 4. Plutarch, Romulus iv. v., supposes the memory of this Acca Laurentia to have been kept in April, and that she was a different person from the Laurentia, or Larentia, who gave name to the ceremony in December.

SECTION XI.—*Sum or substance of the preceding accounts.*

To sum up therefore the conclusions concerning the Calendar, or civil, year of Romulus, which appear to be confirmed by testimony, as far as it has yet been produced.

The calendar or civil year of Romulus consisted of ten months. Four of these ten had proper names; the remaining six had names of order and number only. The four which had proper names were the first four; the six which had not such names were the last six. The names and order of the former were i. Martius; ii. Aprilis; iii. Maius; iv. Junius: those of the latter, were v. Quinctilis; vi. Sextilis; vii. September; viii. October; ix. November; x. December. In these ten months 304 days and nights were comprehended, and neither more nor less than 304; though in what manner these were distributed among the months, or what was the

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custom insisted on at the Matronalia in the month of March, and at the Saturnalia in the month of December; the servants being waited on by their mistresses at the former, and by their masters at the latter: on the former occasion, at the beginning of the year, in order to encourage them to the better performance of their duty through the year; on the latter at the end, by way of reward for their good behaviour in the course of the year. It were to be wished that so pleasing an explanation of this old rule of domestic life among the Romans could be substantiated by the necessary proofs. But the analogy between the Matronalia as the beginning, and the Saturnalia as the end, of the domestic year fails in an important respect; viz. that the former were celebrated on the first of March, the latter on the 17th of December; and though the kalends of March might be the first day of the year, the 17th of December was not the last. The kalends of March were certainly sacred to the matrons at Rome[1]; and according to Servius[2] from as far back as the junction of Romans and Sabines in the reign of Romulus. But as to the Saturnalia; though Macrobius supposes them as old as Janus[3], and Plutarch ascribes their institution to Numa[4], a much later date is assigned them by the Roman historians, as attached at least to their proper date of December 17[5]: long after December had ceased to be the last month.

On this subject see our own Exposition of the Parables, vol. iii. 313. sqq.

[1] Hor. iii. 8. 1. Tibullus, iv. ii. 1. Ovid, Fasti, iii. 169. Juvenal, ix. 53. Festus, xi. 228.9. Martias Kalendas.

[2] Ad Æn. viii. 638.

[3] Satur. i. 7. Cf. Servius, ad Æn. viii. 319.

[4] Comparatio Numæ et Lycurgi, i. Cf. Porphyry, De Nympharum Antro, xxiii. 21, 22.

[5] Livy, ii. 21. Dionys. Hal. vi. 1. Livy, xxii. 1.

rule of alternation in the lengths of the different months, does not yet appear.

We shall now proceed to the investigation of the epoch of the calendar itself; i. e. of the year in which it took its rise, and also of the day from which it bore date.

CHAPTER II.

On the epoch of the Calendar of Romulus.

SECTION I.—*On the three criterions of the day of the Foundation of Rome.* i. *The feast day of Pales.*

Preliminary to the discovery of the truth on this further question of the epoch of the calendar of Romulus; it is necessary to begin with reverting to that of the foundation of Rome. Three characters or criterions of the day of the Foundation appear to have been handed down from the first: one, the Palilia or feast day of Pales; another, the birth of Numa Pompilius the second king of Rome on that day; the third, a solar and lunar conjunction, which was also ecliptic, on the same day. Of each of these in its turn.

With regard to the first; we have had occasion already to direct the attention of the reader to the uniformity of tradition on this point, and to its consistency with itself perpetually; which is the most satisfactory proof of its truth, and of the matter of fact, that the Natalis Urbis in the first instance and the Palilia, (the day known in the Roman calendar by that name either from the first or after a time,) were actually the same. We shall find a more convenient opportunity hereafter for the production of particular testimonies to this effect. The only question which can be raised at present is whether the Palilia was a festival older than the Foundation, and older than Romulus, or not older than the Foundation, or even than the time of Numa Pompilius, by whom it was certainly first consigned to the calendar under its proper *Roman* date.

It is not of much importance to the day of the Foundation in what way this question might be decided; for the actual day of the Foundation will be the same in either case. But with respect to these two suppositions; testimony is apparently equally divided. Dionysius of Halicarnassus had not been able to trace the Palilia beyond the date of the Foundation; Plutarch on the contrary affirms that either this or a similar festival had always been observed at the same season of the year, even before that event. Ταύτην ἔτι καὶ εἰς ἐμὲ τὴν ἡμέραν Ῥωμαίων ἡ πόλις ἑορτῶν οὐδεμιᾶς ἥττονα τιθεμένη καθ' ἕκαστον ἔτος ἄγει, καλοῦσα Παρίλια. θύουσι δ' ἐν αὐτῇ περὶ γονῆς τετραπόδων οἱ γεωργοὶ καὶ νομεῖς θυσίαν χαριστήριον ἔαρος ἀρχομένου. πότερον δὲ παλαιότερον ἔτι τὴν ἡμέραν ταύτην ἐν εὐπαθείαις (*supple* ἀγομένην) ἐπιτηδειοτάτην οἰκισμῷ πόλεως ἐνόμισαν, ἢ τοῦ κτίσματος ἄρξαντος ἱερὰν ἐποιήσαντο, καὶ θεοὺς ἐν αὐτῇ τυῖς ποιμέσι φίλους γεραίρειν ᾤοντο δεῖν, οὐκ ἔχω βεβαίως εἰπεῖν[w]—"Οτι μὲν οὖν ἡ κτίσις ἡμέρᾳ γένοιτο τῇ πρὸ ἕνδεκα καλανδῶν Μαΐων ὁμολογεῖται· καὶ τὴν ἡμέραν ταύτην ἑορτάζουσι Ῥωμαῖοι γενέθλιον τῆς πατρίδος ὀνομάζοντες. ἐν ἀρχῇ δ' ὥς φασιν οὐδὲν ἔμψυχον ἔθυον, ἀλλὰ καθαρὰν καὶ ἀναίμακτον ᾤοντο δεῖν τῇ πατρίδι τὴν ἐπώνυμον τῆς γενέσεως ἑορτὴν φυλάττειν[x]. οὐ μὴν ἀλλὰ καὶ πρὸ τῆς κτίσεως βοτηρική τις ἦν αὐτοῖς ἑορτὴ κατὰ ταύτην τὴν ἡμέραν, καὶ Παλήλια προσηγόρευον αὐτήν[y].

Dionysius and Plutarch being supposed to be equally well informed on Roman antiquity in general, or on this one point of Roman antiquity in particular; it would be difficult to decide between two testimonies, apparently so contrary one to the other, which was to be preferred to which: and yet in reality, on a nearer and closer inspection, it will not appear that there is any actual contradiction between them. It cannot be necessarily inferred from Dionysius' statement that there was no ceremony nor observance, like the Palilia, older than the Foundation; but only that there was none such known to him. It must be inferred from Plutarch's, that there was a festival, the same in kind with the Palilia, and celebrated at the same season of the year, even before the Foundation. And Plutarch asserts this in such a manner, as to make it clear that he himself entertained no doubt of the fact; from which we may reasonably conclude that he had met with proofs of the fact, whether Dionysius had so or not. On the whole then the testimony of Dionysius on this point could not be considered decisive; unless it were to be supposed that there could have been no proof of the actual antiquity of the Palilia which must not have come to his knowledge. Plutarch's on the contrary is express and positive; and can leave no room for doubt, unless we could suppose that he spoke at random: i.e. asserted a particular matter of fact without knowing whether there was any foundation for the assertion or not.

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[w] Dionys. Hal. i. 88.

[x] Cf. Censorinus, De Die Natali, ii.

[y] Plutarch, Romulus, xii.

Dionysius' statement indeed, that the Palilia could not be traced beyond the Foundation, may be strictly true, if he meant the Palilia in the sense of the Natalis Urbis; and by the stated date of the Palilia the stated date of the Natalis Urbis in the Roman calendar: for in that sense and construction of the term, so far from being as old as Romulus, it was not older than Numa Pompilius. There can be no doubt that the Palilia were first consigned to the calendar under their proper date, (the xi Kal. Maias,) by Numa Pompilius; and that, if Dionysius knew of them only as attached to this date, he could not possibly have traced them beyond the Foundation. It should be remembered however that the proper name of this day, as the Palilia, was one thing, and as the Natalis Urbis, was another. The feast day of Pales in the nature of things must be a different thing from the birthday of the city; if Pales herself was a different thing from the city of Rome. Nor can there be any question that Pales as a person was as much a reality as the city of Rome as a city; that the Italian Pales was an actual conception of its proper kind; and had the same kind of real existence in the apprehension of the Italians as Demeter in that of the Greeks, or Isis in that of the Egyptians. The feast of Pales then must have been one thing and the Natalis Urbis must have been another. Both could not have met in the same day except by accident or by appointment; and if the supposition of accident is excluded by the circumstances of the case, it must have been by appointment and from design. Was the feast day of Pales then attached to the Natalis Urbis? or was the Natalis Urbis attached to the feast day of Pales?

And this question is substantially the same as another, viz. Which was, or which might have been, the older of the two? the city of Rome, or Pales? In answer to which it would be very important to observe that the Italian Pales herself was the impersonation of nature both animal and vegetable, and in particular of animal nature. She was the type of animal fecundity, and of productiveness, on the largest possible scale. Such a conception in the nature of things must have been older than the Foundation of Rome. Pales in this sense and in this capacity must have been in existence long before the city of Rome. It is agreed too that Pales, even as the impersonation of nature, had a proper and special relation to one season of the year, the spring. She was the type of fecundity and production, whether vegetable or animal, as annually renewed in the spring: and therefore her festival was attached to the spring, and no season of the year was considered so proper for her, and so much in character with her attributes, offices, and operations, as the season of spring. There is no reason why it should not be supposed that tradition and uninterrupted belief might have perpetuated among the people of Italy, as well as among the rest of the nations of antiquity, the memory of the great historical fact of the beginning of mundane time, in the spring; and of the connection of the existing system of things with that one season of the year in particular, more than with any other[z]. We should thus account in the most natural manner for the association of the rites of Pales also with the spring; and possibly long before the existence of the city of Rome. We should account too on equally natural principles for the possible combination of these two things, the Foundation of Rome and the Palilia, which could not have coincided in one day at first except by appointment and from design. To this subject however we hope to return hereafter. It makes no difference to the object of our inquiries at present, (the epoch of the calendar of Romulus,) or even to the day of the Foundation itself, whether the Palilia were older than the city of Rome or not.

[z] See our Fasti Catholici, ii. 100. sqq. Diss. ix. ch. iv. sect. x.: iii. 256. Diss. xv. ch. iii. sect. iii: 315. sqq. ch. iv. sect. x.

SECTION II.—ii. *Birthday of Numa Pompilius.*

With respect to the second criterion; there can be no doubt that tradition among the Romans represented Numa Pompilius, their second king, to have been born on the day of the Foundation itself. *Ἦν δὲ πόλεως μὲν ὁ Νουμᾶς ἐπιφανοῦς ἐν Σαβίνοις τῆς Κύρεων, ἀφ' ἧς Κυρίτας Ῥωμαῖοι σφᾶς αὐτοὺς ἅμα τοῖς ἀνακραθεῖσι Σαβίνοις προσηγόρευσαν· υἱὸς δὲ Πομπωνίου ἀνδρὸς εὐδοκίμου, τεσσάρων ἀδελφῶν νεώτατος, ἡμέρᾳ δὲ γεγονὼς κατὰ δή τινα θείαν τύχην ἐν ᾗ τὴν Ῥώμην ἔκτισαν οἱ περὶ Ῥωμύλον. αὕτη δέ ἐστι πρὸ δέκα μιᾶς καλανδῶν Μαΐου*[a]. The same tradition is attested by the fragments of Dio Cassius; an historian who seems to have inquired for himself and to have taken nothing merely on authority, and yet was very attentive to all such coincidences as these: *Φασὶ δὲ αὐτὸν οἱ τὰ σαφέστατα Σαβίνων εἰδότες ἐν τῇ αὐτῇ ἡμέρᾳ ἐν ᾗ ἡ Ῥώμη ἐκτίσθη γεγεννῆσθαι*[b].

It cannot be objected to this tradition that it must have handed down what was impossible. Such coincidences, though rare of occurrence, are capable of happening; and in a particular instance, independently even of testimony, might be perfectly credible, when resolved into their true cause, *Κατὰ δή τινα θείαν τύχην*, as Plutarch exprest it: for nothing of this kind could be otherwise than providential. We speak of chance in these cases merely in conventional language; and by way of apology for our own ignorance of the actual mode in which such things are brought to pass. It is agreed at least that Numa was a man of confirmed age when he was elected king of Rome; and it will appear hereafter that, though born on the day of the Foundation, he could not have been less than 38 years of age when he succeeded to Romulus.

The possible truth then of the tradition to this effect being admitted; the question for our consideration would be By what kind of calendar, and in what kind of years, would the age of one born on the day of the Foundation be ever after reckoned? more particularly that of one born at Cures among the Sabines, not at Rome and among the

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[a] Plutarch, Numa, iii. [b] xx. § 2.

Romans? Was the calendar of Cures at this time the same with that of the Romans? or was either such that the ages of men could with any propriety be reckoned by it? We know enough already of the calendar of Romulus to understand that a person, five years of age in the ordinary sense of the phrase, must have passed for six years old, in terms of that; and that one who was only 35 years old in reality must have been considered to be 42 according to that. It is highly improbable that the reckoning of ages, (a matter in which men were personally so much concerned,) would be kept any where in such a calendar. But we have already observed that even the calendar of Romulus from its very nature was necessarily associated with the Primitive; round which it was revolving perpetually. We shall see, we trust, in due time that Numa's correction of the calendar of Romulus itself was directly derived from this; and that fact must be a demonstrative proof that the Primitive calendar had never ceased to be in existence at Cures at least, down to the time of Numa himself. By this calendar the ages of men might be reckoned perpetually, almost as truly as by the natural or by the Julian year; especially the age of the same man, at the different periods of his life. We are entirely of opinion therefore that the birthday of Numa, recognised by the tradition in question, must have been intended from the first of the day of his birth according to this Primitive calendar; and of the coincidence of the day in that calendar on which he was actually born with the date of the Foundation also: and we conclude too that his age must have been reckoned ever after in terms of this Primitive calendar, not in terms of the calendar of Romulus; and consequently that, if the tradition of his having been born on the day of the Foundation admits of being verified by the matter of fact, it must be by means of the Primitive calendar.

SECTION III.—iii. *The Lunar and Solar conjunction.*

The fact of a lunar and solar conjunction on the day of the foundation of Rome is distinctly asserted by Plutarch[c]: *Νῦν μὲν οὖν οὐδὲν αἱ Ῥωμαϊκαὶ νουμηνίαι πρὸς τὰς Ἑλληνικὰς* ὁμολογούμενον ἔχουσιν. ἐκείνην δὲ τὴν ἡμέραν ῃ τὴν πόλιν ὁ Ῥωμύλος ἔκτιζεν ἀτρεκῆ τριακάδα* τυχεῖν λέγουσι. Now this is a very important criterion of the true day; for which reason, and in order to preclude any such objection beforehand as that this character in particular might not have been handed down by tradition, but discovered by some such calculation as that of Tarutius; it is by all means to be observed that Tarutius' calculation did not fix the Foundation to the *Luna prima,* but to the *Luna decima* or *undecima.* This particular statement then could never have been founded on Tarutius' calculation; nor have had any thing to do in its origin with his astrology. It confirms this distinction that Plutarch passes at once from this statement to the account of that calculation; the result of which was something so totally different from what is here asserted, whether he himself was aware of the difference or not. It is evident therefore that he got this fact, relating to the conjunction at the Foundation, from one quarter, and Tarutius' calculations from another; and a fact like that could be derived only from history or from tradition. It will be seen by and by that he appeals to contemporary testimony in confirmation of it. He specifies it also, as a further characteristic of this same conjunction, that it was *ecliptic;* that Rome was founded in the midst of a solar eclipse: and this, if true, as a test or criterion of the day, is even more important and decisive than the fact of the simple conjunction.

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[c] Romulus, xii.

SECTION IV.—*Application of the above criteria, first to the date of the Foundation, secondly to the epoch of the Calendar of Romulus.*

i. The calendar date of the Roman Palilia from the time of Numa downwards was always the xi Kal. Maias; and this day the xi Kal. Maias, as the same with itself in terms of the calendar perpetually, always denoted a certain day in the Roman April. In the Julian correction of after times the xi Kal. Maias denoted the 21st of April; but in the Irregular calendar older than that correction, and in the

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* We might have expected the word σύνοδον here. But in Plutarch's time, even in the most accurate of the Greek lunar calendars, the new moons fell on the 30th of the month.

Decemviral older than the Irregular, and in the calendar of Numa the original of the Decemviral, it denoted the 20th of April. For April, in each of these preexisting states of the calendar from Numa downwards to the Julian correction, contained only 29 days, but in the Julian calendar it had 30 days; and the day which made the difference in its length, before and after the Julian correction respectively, was inserted between the Ides of April and the Kalends of May. This day made no difference either to the real or to the nominal style of any other between the Kalends and the Ides of April; but it did so to the real, if not to the nominal, description and designation of any day between the Ides of April and the Kalends of the next month. There was no xviii Kalendas Maias in the Aprilis of Numa; but there was one in that of Cæsar. There was a xvii Kalendas Maias in both; but it denoted the 14th of the month in the Aprilis of Numa, and the 15th in that of Cæsar. In like manner the xi Kal. Maias was nominally the same in both. But it meant the 20th of April in the one, the 21st of April in the other.

It is very necessary to attend to this distinction upon such a question as the present; which is that of the derivation of the true date of the Natalis Urbis from the true date of the Palilia, after both had come to be attached to, and both to be denoted by, the same day; and that day the stated date of each in the calendar of Numa, the xi Kal. Maias. It may well be doubted whether the most exact of our Roman authorities were always aware of it, or careful to keep it in mind. They were so accustomed to look at each of these things through its nominal representative, the xi Kal. Maias, which had always continued the same in terms, that probably they never stopt to reflect on the real difference in the meaning of the same date so expressed before and after a certain time. It would therefore be something surprizing to find this distinction clearly recognised by so late an author as the Byzantine Zonaras; were there not reason to conclude that in his Roman history he took almost everything of this kind from Dio Cassius, or from Plutarch; the former of whom was very likely to attend to this distinction: Ἡ δὲ κτίσις τῆς πόλεως ταύτης ἡμέρᾳ τετέλεστο τῇ πρὸ ἕνδεκα καλανδῶν Μαΐων, ᾗ *ἂν εἴη εἰκοστὴ Ἀπριλλίου. καὶ τὴν ἡμέραν ταύτην ἑορτάζουσι Ῥωμαῖοι γενέθλιον τῆς πατρίδος ὀνομάζοντες*[d].

Now such being the stated date of the Palilia in the calendar of Numa, viz. April 20; the next question is that of the place of Aprilis in his calendar. We will assume that it was the third month; that Januarius was the first month in the calendar of Numa, Martius the second, and Aprilis the third. The next consideration is the length of these months respectively in his calendar also. We will assume that Januarius had 29 days, Martius 31, Aprilis 29. It follows that Aprilis 20 in his calendar, the day denoted in the style of his calendar by xi Kal. Maias, was the 80th inclusive from the kalends of Januarius inclusive. It follows consequently that, if the date of the Palilia and the date of the Natalis Urbis in the calendar of Numa both fell on the xi Kalendas Maias, both fell on the 80th day of his calendar; and if the Pompilian date of the Palilia was purposely attached to that of the Natalis Urbis, or *vice versa*, and both were purposely attached to the 80th day of the calendar, though it cannot be inferred from this coincidence with absolute certainty, it may be with the highest degree of probability, that they were purposely attached to the 80th day in *his* calendar, because they had been originally attached to the 80th day in *that* of Romulus.

ii. With regard to the birthday of Numa; we will assume for the present that the epoch of the calendar of Numa and the first day of the primitive year for the time being met together B. C. 712: i. e. that the Julian February 17, reckoned from midnight, B.C. 712, represented both the first day of the primitive Thoth, similarly reckoned, Æra Cyclica 3295, and the Kalends of January, reckoned in the same manner, in the first year of the first cycle of the calendar of Numa. The 80th day then from the 17th of February, B. C. 712, inclusive stood in the same relation to both these years. It was the 20th of the third month in the primitive year, and the 20th of the third month in the corresponding year of the calendar of Numa. If then we were justified in concluding that the birthday of Numa would be reckoned by the Primitive calendar; we have only to suppose that he was actually born on the 20th of the third month in that calendar, and we shall account for the tradition that he was born on the day of the foundation of Rome. The day of his birth by the Primitive calendar, and the Natalis Urbis in his own calendar, B. C. 712, were absolutely one and the same; Athyr 20 in the former, Aprilis 20 in the latter. The meaning of this is that, if Numa was actually born on the 20th Athyr B. C. 750. U. C. 1. his birthday would be considered to be Athyr 20, B. C. 712. U. C. 39; and if, as so considered U. C. 39, it fell on the Natalis Urbis; that would be reason sufficient why it should be supposed to have fallen on the Natalis Urbis from the first.

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[d] vii. iii. 316. B.

iii. With regard to the lunar and solar conjunction: *Ἐκείνην δὲ τὴν ἡμέραν*, said Plutarch[e], *ᾗ τὴν πόλιν ὁ Ῥωμύλος ἔκτιζεν ἀτρεκῆ τριακάδα τυχεῖν λέγουσι· καὶ σύνοδον ἐκλειπτικὴν ἐν αὐτῇ γενέσθαι σελήνης πρὸς ἥλιον, ἣν εἰδέναι καὶ Ἀντίμαχον οἴονται τὸν Τήϊον ἐποποιὸν, ἔτει τρίτῳ τῆς ἕκτης Ὀλυμπιάδος συμπεσοῦσαν.*

Some remarks are obviously suggested by this statement. i. A solar and lunar conjunction on a particular day and a solar eclipse on the same day are not necessarily connected. The former must happen once in every month, and for every meridian under the sun; the latter can happen only a limited number of times in a given year for any meridian, and for one and the same meridian still less frequently. Yet Roman history or Roman tradition deposed to both these things in the present instance; to a lunar and solar conjunction and to an eclipse of the sun, as simultaneous and coincident for one and the same meridian, that of Rome. We are not at liberty to accept of one of these things on the faith of the tradition, and to reject the other. If then Rome was actually founded on the day of a new moon, it was actually founded on the day of a solar eclipse also, which coincided with it.

ii. Though the year of this conjunction, and of this eclipse coincident with it, in the preceding statement appears to be referred to the Varronian epoch of the Foundation, Ol. vi. 3. B. C. 753; yet if there was any foundation for the tradition in the matter of fact, (that is, if such an ecliptic conjunction did really happen at the time of the foundation of Rome,) it is clear that this was a reference which could not possibly have been authorized by the tradition itself; because there was no eclipse of the sun in the Varronian year of the foundation, B. C. 753, except one, November 18, at 8.45 P. M.: and that could not have coincided with the traditionary day of the Foundation, the Palilia, some day in the spring; i. e. in the opposite quarter of the year. It is very possible that the Varronian date of the Foundation might be connected with this traditionary eclipse by those who adopted the former and knew of the latter; but it could not have been connected with it by the tradition. Still less can the origin of this tradition be traced back ultimately to the astrological calculation of Tarutius; which was so far from finding a solar eclipse on the traditionary date of the Foundation, the Palilia, B. C. 753, that it did not find even a solar and lunar conjunction on that day; but instead of it a moon ten or eleven days old.

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[e] Romulus, xii.

iii. Neither can it be inferred from this statement of Plutarch's that the ultimate authority for this traditional eclipse at the Foundation was Antimachus the epic poet, here referred to as Antimachus of Teos; but rather the contrary, that the tradition itself was independent of the testimony of Antimachus, which served merely to corroborate it: Ἧν εἰδέναι καὶ Ἀντίμαχον οἴονται τὸν Τήϊον ἐποποιόν. It does not appear from this reference to Antimachus that Plutarch was aware of his having attested the fact of such an eclipse, because he had met with it himself in the poems ascribed to this Antimachus; but it must be implied by it that he had found it on record somewhere or other that Antimachus had described an eclipse of the sun, which was supposed to be that which happened at the foundation of Rome. It is well known that Archilochus and Pindar described eclipses of the sun which happened in their time*; and fragments of both, the subject of which is a memorable phenomenon of that kind, have descended to posterity. In like manner, Antimachus of Teos must have done the same; and whether his poems existed entire in the time of Plutarch or not, or had been read by himself or not, it must have been known to Plutarch, on credible authority, that there was such a description somewhere or other in them. In this case, if the antiquity of

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* Pliny, H. N. ii. 9. p. 227, says the same of Stesichorus also.

Antimachus was such that a memorable phenomenon of that kind, observed or recorded by him, must go as far back as the foundation of Rome; it was easy to connect it with the traditionary eclipse of the Foundation itself*. But this traditionary eclipse did not ultimately rest on the testimony of Antimachus. It was both prior to it and inde-

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* No epic poet of antiquity among the Greeks appears to have been generally known by the name of Antimachus but Antimachus of Colophon; and he would be much too late for the Foundation of Rome, or for any eclipse which happened at or about the Foundation. Besides which Plutarch was no doubt familiar with the poems of this Antimachus; whom Adrian his contemporary preferred even to Homer[1], and whom he himself quotes[2] in his own works.

Suidas: Ἀντίμαχος of Colophon, an hearer of Panyasis (of Halicarnassus) and Stesimbrotus: Γεγονὼς ἐπὶ Πλάτωνος[3]. Diodorus[4], Alexias, Ol. 93, 4: Καθ' ὃν δὴ χρόνον καὶ Ἀντίμαχον τὸν ποιητὴν Ἀπολλόδωρος ὁ Ἀθηναῖός φησιν ἠνθηκέναι. He was certainly a contemporary of Plato's; but Plato was the younger of the two: and instead of saying as Suidas does, that Antimachus was born or flourished ἐπὶ Πλάτωνος, it would be more correct to say that Plato was born ἐπὶ Ἀντιμάχου[5]. Plutarch shews that both were living at the time of the capture of Athens by Lysander, B. C. 404[6], and he styles Plato *νέον τότε*, but not Antimachus.

With regard to Antimachus of Teos, a fragment is quoted by Clemens Alexandrinus[7] from a poet of that name. Ἀντιμάχου τε τοῦ Τηΐου εἰπόντος·

Ἐκ γὰρ δώρων πολλὰ κάκ' ἀνθρώποισι πέλονται·

Αἰγίας ἐποίησεν·

Δῶρα γὰρ ἀνθρώπων νόον ἤπαφεν ἠδὲ καὶ ἔργα.

So that there were poems in existence even in Clemens' time ascribed to him. As an epic poet, and of an age any thing like that of the Foundation, he must stand next to Homer, and must be classed with Arctinus of Miletus, Eumelus of Corinth, and others, fragments ascribed to whom are still extant; and he was probably as much older than Archilochus or Hesiod as he was younger than Homer.

It is a curious coincidence that the Olympic ἀναγραφαὶ recorded the name of Antimachus, Olympiad 4 B.C. 764, as victor in the stade. Steph. Byz. Δυσπόντιον: πόλις Πισαίας, ἀπὸ Δυσποντίου τοῦ Πέλοπος, παρὰ τὴν ὁδὸν τὴν ἐξ Ἤλιδος εἰς Ὀλυμπίαν. ἀπὸ ταύτης Ἀντίμαχος ἦν Ὀλυμπιονίκης, νικήσας ἐν Ὀλυμπιάδι (δ') στάδιον.

Φλέγων ἐν Ὀλυμπιάδι δ', Ἀντίμαχος Ἠλεῖος ἐκ Δυσποντίου στάδιον. Cf. Euseb. Chron. Arm. Lat. Pars i. 283. Anecdota Græca Par. ii. 142. 3.

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[1] Dio, lxix. 4. Historiæ Aug. SS. Spartian, Adrian, 16.

[2] Cf. Consolatio ad Apollon. ix.

[3] Cf. in Χοίριλος.

[4] xiii. 108: 104.

[5] Cf. our Fasti Catholici, i. 339, note.

[6] Lysander, xviii.

[7] Stromata, vi. ii. § 12. 104. 23.

pendent of it. Antimachus' testimony at the utmost only corroborated it; and the eclipse at the Foundation would still have its proper grounds of belief though Antimachus' eclipse could be shewn to have been totally different from it. In like manner, the credit of this traditionary eclipse is not impaired by its being erroneously connected with the Varronian epoch of the Foundation. The tradition itself is not answerable for a misapprehension of that kind. If a coincidence of this description did actually signalize the Foundation of Rome; it is absurd to search for the evidence of it in any but the true year of the Foundation itself.

Now, if we look through the Tables of Pingrè, we find one solar eclipse, July 5, at 5 30 P. M. Paris, B. C. 754; and another, the same year, Nov. 30, at 8 45 P. M. Paris: each of which would be excluded by the year itself, if by no other consideration. We find one eclipse of the sun, B. C. 753, (but only one,) Nov. 18, 8 45 P. M. Paris. We find another, B. C. 752, May 15, 7 P. M. Paris; and a second the same year, Nov. 8, 2 45 A. M. at Paris: neither of which could have been visible at Rome. We find another solar eclipse, B. C. 751, May 5, 4 A. M. at Paris; May 5, 4 40 A. M. at Rome. Whether this might possibly have been visible at Rome, for part at least of its duration, we do not undertake to say. If we are right in the conclusion at which we have already arrived, respecting the probable year of the Foundation, all these years, B. C. 753—751, must be excluded from the scope of the present inquiry, as all alike too early.

The next solar eclipse however, which appears in Pingrè, has the date of April 24, at 6 45 A. M. Paris, B. C. 750. And though this is described in his Table as *très petite*, amounting only to an *attouchement* of the disc of the sun; yet even that would be competent to ascertain and authenticate this day, April 24, B. C. 750, as the date of a true lunar conjunction, or of what Plutarch termed the ἀτρεκὴς τριακὰς in the sense of σύνοδος: and what is more, of an ecliptic conjunction too. It is agreed however among astronomers at present that these calculations of Pingrè, though the best which could have been made in his time, are all more or less inaccurate; so that, if any thing depends on the exactness of the results, we have no alternative except to calculate them over again, from the modern data.

We have therefore calculated this lunar conjunction of April 24 B. C. 750 afresh, from our own Tables; and after the method of which we gave an account in our former work[f]: and we have found, as the result of that calculation,

		h.	m.	s.	
The mean new moon	April 24.	1	16	42	mean time Greenwich.
	April 24.	2	6	31	mean time Rome.

		h.	m.	s.	
The true new moon	April 24.	5	46	19·5	mean time Greenwich.
	April 24.	6	36	8·5	mean time Rome.

The distance of the sun from the node at the time of the mean conjunction was 14° 14′ 20″, and at the time of the true was 15° 31′ 57″; the latter of which was 3° 4′ at least within the extreme limits of a solar eclipse, 18° 36′[g]: so that there must have been somewhere or other, on this day, a much more considerable eclipse than Pingrè supposed. And it is very desirable that some competent person should both calculate this eclipse again, with all the exactness of which astronomy is capable at present, and should also project it, in order to ascertain what kind of appearance it would actually exhibit at Rome. It is manifest however that there must have been a new moon this year on April 24, for almost any meridian under the sun; and we have rendered it more than probable that there must have been an eclipse also at this new moon, which might have been more or less visible even at Rome.

We have seen too that tradition among the Romans, derived from some source or other, did actually hand down the fact that the day of the Foundation was the day of a solar eclipse also. Laying therefore all these coincidences together, (the traditionary testimony to this particular fact, the year, which we have already determined on other grounds to B. C. 750, the Natalis Urbis as the same in the first instance with the Palilia, the Palilia as properly the feast of Pales, the Goddess of Nature, and as a feast of the spring, and probably also as older than the Foundation, and probably even as the standing memorial in Italy of the Natale Mundi itself, the true date of this Natale Mundi, April 25 or April 24[h], and lastly, this fact, discoverable by calculation, that April 24 B.C. 750 was actually the date of the new moon, and also of a solar eclipse,) we may reasonably draw the conclusion that the day distinguished by so many coincidences, April 24 B.C. 750, must have been the actual date of the Foundation.

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[f] Introd. to the Tables of the Fasti Catholici, page 276, Part iii. ch. ii. s. iii. Cf. the Advertisement to the Reader.

[g] Fasti Catholici, iii. 518, note.

Nor ought we to omit to mention that, as the Dominical Letter, B.C. 750, according to the true cycle of that letter from the first, was G, April 24 that year must have been the *Feria tertia* or Tuesday; i. e. that day in the Hebdomadal cycle which was sacred to Mars[i]. We shall probably see reason hereafter to conclude that the Hebdomadal cycle under Planetary names was known of in Italy before the Foundation of Rome; and consequently that a coincidence of this kind was very likely to be purposely affected, in fixing on the day of the Foundation itself. Tradition has handed down this fact too; viz. that Rome was under the *tutela* of Mars from the time when it came into being: and the origin of that tradition also would so far be explained if it came into being on *his* day.

Moreover the first hour of the *feria tertia* being more especially sacred to the planet Mars[k], it is most probable that the time of the day chosen for the foundation would be the first hour; which would also be most agreeable to the habits of antiquity, and to the common rule of life at that early period. We have calculated the time of sunrise for the latitude of Rome, April 24, B.C. 750; and we have found that apparent sunrise, including the effect of refraction, would take place about 5h. 22m. 5s. A. M. apparent time, 5h. 19m. 45s. mean time: and that being 1 hour, 17 minutes, before the middle of the eclipse, the eclipse would probably be beginning at sunrise; so that nothing could be more strictly the case under such circumstances than the fact handed down by tradition: viz. that Rome, if founded at such a time, was founded in the midst of a solar eclipse.

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[h] See our Fasti Catholici—passim; and the Introduction.

[i] Fasti Catholici, iii. 489 sqq. Diss. xv. ch. viii. sect. viii.

[k] Fasti Catholici, i. 414. Diss. vi. ch. ii. sect. iii.

The epoch of the Foundation in terms of the day being thus determined; it is easy to obtain from it that of the calendar. The day of the Foundation was the 80th, reckoned on from the first day of the calendar. Conversely the first day of the calendar was the 80th, reckoned back from the day of the Foundation. Reckon back therefore 79 days from April 24, B. C. 750; and you come to February 4: or reckon on 79 days from February 4, B. C. 750, and you come to April 24. On this principle the epoch of the calendar, coæval with Romulus and the city of Rome, was February 4. The first day of the calendar which came into being along with the city of Rome was February 4 B. C. 750. We shall find this conclusion confirmed by many concurrent proofs, not yet produced. The premises therefore on which it is founded must be true. The method by which we have proceeded in arriving at this conclusion cannot have led us wrong.

SECTION V.—*Confirmation of the epoch of the Calendar of Romulus, Feb. 4, by other proofs.*

i. *By the cycle of the Nundinal day.*

Now that February 4 B. C. 750 was the actual date of the calendar of Romulus, (i. e. that the proper Roman style according to this calendar did actually take its rise on February 4 B.C. 750, as the true Julian date of the first Kalends of March in the civil year of Romulus,) is proved in the first place by the course of the Nundinal cycle, and by the revolution of the Nundinal day, as derived from the calendar of Romulus to that of Numa, and from the calendar of Numa to that of Cæsar. In both, when traced back to its origin, it is found to bear date on the same day; the first Nundinal day in the calendar of Romulus; the kalends of March U. C. 1, Feb. 4 Julian B. C. 750. This is a very important confirmation of the truth of our conclusions on this point; but we could not conveniently enter upon it at present, so as to do justice to it. It must be reserved for the time when the Nundinal cycle, as a constituent part not only of the first Roman calendar but also of every subsequent one, continuing all the while one and the same in itself, will come formally under our consideration.

SECTION VI.—ii. *By the date of the eclipse of the sun at the death of Romulus.*

Another and a still more direct proof of the epoch of the calendar of Romulus is supplied by the decursus of the calendar itself from that day forward; i. e. by the course and succession of noctidiurnal and annual time, according to the law of each, in that calendar, from the time when it came into existence down to the time of the death of Romulus. But for the full explanation of this proof it is necessary to begin with considering the circumstances of the death of Romulus, as they appear to have been handed down by tradition among the Romans from the earliest to the latest times.

Testimonies of Antiquity to the circumstances of the death of Romulus; and in particular to the eclipse of the sun on the day of that event.

i. Est locus, antiqui Capream dixere Paludem[l]:
Forte tuis illic Romule! jura dabas.
Sol fugit et removent subeuntia nubila cœlum,
Et gravis effusis decidit imber aquis.
Hinc tonat hinc missis abrumpitur ignibus æther:
Fit fuga: rex patriis astra petebat equis.
Luctus erat falsæque Patres in crimine cædis;
Hæsissetque animis forsitan illa fides.
Sed Proculus longa veniebat Julius Alba;
Lunaque fulgebat nec facis usus erat.
Cum subito motu nubes crepuere sinistræ.
Rettulit ille gradus horrueruntque comæ.
Pulcher et humano major trabeaque decorus
Romulus in media visus adesse via:
Et dixisse simul, Prohibe lugere Quirites,
Nec violent lacrymis numina nostra suis.
Tura ferant, placentque novum pia turba Quirinum,
Et patrias artes militiamque colant.
Jussit et in tenues oculis evanuit auras.
Convocat hic populos jussaque verba refert.
Templa deo fiunt: collis quoque dictus ab illo:
Et referunt certi sacra paterna dies[m].

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[l] We learn from Festus, iii. 67, that the proper name of this locality was Caprilia. Caprilia appellatur ager qui vulgo ad Capræ Paludes dici solet. It was however somewhere in the Campus Martius.

[m] Ovid, Fasti, ii. 491. Cf. Metam xiv. 816–828. Horace, Carm. iii. iii. 15.

ii. His immortalibus editis operibus, quum ad exercitum recensendum concionem in campo ad Capræ Paludem haberet; subito coorta tempestas cum magno fragore tonitribusque tam denso regem operuit nimbo ut conspectum ejus concioni abstulerit. nec deinde in terris Romulus fuit . . . . namque Proculus Julius, sollicita civitate desiderio regis* et infensa patribus, gravis ut traditur quamvis magnæ rei auctor, in concionem prodit. Romulus inquit Quirites, parens urbis hujus, prima hodierna luce cœlo repente delabsus se mihi obviam dedit[n], &c.

iii. *Οἱ μὲν οὖν μυθωδέστερα τὰ περὶ αὐτοῦ ποιοῦντες ἐκκλησιάζοντά φασιν αὐτὸν ἐπὶ στρατοπέδου, ζόφου κατασκήψαντος ἐξ αἰθρίας καὶ χειμῶνος μεγάλου καταρραγέντος, ἀφανῆ γενέσθαι . . . διὰ τοῦτό γε οὖν φασι τὴν ἡμέραν ἐν ᾗ τὸ πάθος ἐγένετο τῆς τροπῆς τοῦ πλήθους ἐπώνυμον εἶναι, καὶ μέχρι τῶν καθ' ἡμᾶς χρόνων Ὄχλου φυγὴν καλεῖσθαι*[o]—*Ἔτι γὰρ ἀγνοούντων τὸν ἀφανισμὸν αὐτοῦ Ῥωμαίων, εἴτε κατὰ δαίμονος πρόνοιαν εἴτε ἐξ ἐπιβουλῆς ἀνθρωπίνης ἐγένετο, παρελθών τις εἰς τὴν ἀγορὰν Ἰούλιος ὄνομα τῶν ἀπ' Ἀσκανίου, γεωργικὸς ἀνὴρ καὶ τὸν βίον ἀνεπίληπτος, οἷος μηδὲν ἂν ψεύσασθαι κέρδους ἕνεκα οἰκείου, ἔφη παραγενόμενος ἐξ ἀγροῦ Ῥωμύλον ἰδεῖν ἀπιόντα ἐκ τῆς πόλεως ἔχοντα τὰ ὅπλα. καὶ ἐπειδὴ ἐγγὺς ἐγένετο ἀκοῦσαι ταῦτα αὐτοῦ λέγοντος· Ἄγγελλε Ῥωμαίοις Ἰούλιε τὰ παρ' ἐμοῦ· ὅτι με ὁ λαχὼν ὅτε ἐγεινάμην δαίμων εἰς θεοὺς ἄγεται τὸν θνητὸν ἐκπληρώσαντα αἰῶνα. εἰμὶ δὲ Κυρῖνος*[p].

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* Lactantius, i. xv: Nam Romulum desiderio suis fuisse declarat Ennius; apud quem populus amissum regem dolens hæc loquitur:

O Romule Romule die!
Qualem te patriæ custodem dî genuerunt!
Tu produxisti nos intra luminis oras.
O pater! O genitor! O sanguen dis oriundum!

ob hoc desiderium facilius creditum est Julio Proculo mentienti; qui subornatus a patribus est ut nuntiaret plebi suæ vidisse se regem humano habitu augustiorem, eumque mandasse ad populum ut sibi delubrum fieret, se deum esse et Quirinum vocari. quo facto et ipsi populo persuasit Romulum ad deos abiisse, et senatum suspicione cædis regiæ liberavit.

Cicero, De Republica, i. quotes this passage, as follows:

Pectora dia tenet desiderium; simul inter
Sese sic memorant: O Romule Romule die! &c.

[n] Livy, i. 16.

[o] Dionysius Hal. ii. 56.

[p] Ibid. 63.

We have prefixed these three testimonies, not because they depose in so many words to the fact of an eclipse of the sun on this occasion, but because they imply it; by the disturbance of the elements and by the darkness to which they allude, and by the disappearance of Romulus in the midst of both. Otherwise it is clear from the context of the first in particular that Ovid dated this disappearance on the Quirinalia, the feast-day of the god Quirinus (i. e. of Romulus himself) in the Roman calendar, the stated date of which was xiii Kal. Martias; not on the traditionary date the Nonæ Quinctiles: and that the next night he supposed something like a full moon; which must have been totally incompatible with the fact of a solar eclipse the day before. It appears too from the third that Dionysius dated the disappearance on the day which bore the name of the Populifugia or Populi fuga in the calendar of his time, the iii Nonas Julias or Quinctiles; not on the Nonæ Quinctiles. There can be no doubt that in this supposition he was mistaken; though the same misapprehension, as we shall see by and by, appears in Plutarch too. The ancients however give a totally different account of the origin of this particular designation of the Populifugia of the calendar*; and one which shews

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* Varro, De Lingua Lat. v. 56: Dies Populi Fugia videtur nominatus quod eo die repente tumultu fugerit populus. non multo enim post hic dies quam decessus Gallorum ex urbe:. et qui tum sub urbe populi, ut Ficuleates ac Fidenates, et finitimi alii, contra nos conjurarunt. aliquot hujus diei vestigia fugæ in sacreis adparent, de quibus rebus Antiquitatum libri plura referunt.

The context of Varro here implies that the calendar date of this day must have come between the end of June and the Nonæ Caprotinæ, the 7th of July. This is confirmed by the Maffæan and the Amiternine Kalendars apud Foggini; in both which the characters POPLIF. stand opposite to iii Non. Julias, the 5th of July. The same day was also NP (Nefastus Primo or ex Parte) in the Julian calendar.

Macrobius, Saturn. iii. 2. p. 6: Piso ait Vitulam Victoriam nominari. cujus rei hoc argumentum profert, quod postridie Nonas Julias re bene gesta, cum pridie (Nonas) populus a Tuscis in fugam versus sit, (unde Populifugia vocantur,) post victoriam certis sacrificiis fiat (corr. fuit,) vitulatio; the proper sense of vitulatio so used here being *παιανισμὸς*, or *ὀλολυγμός*. Vitulari, according to Titius and Varro, both quoted, denoted *voce lætari*, *παιανίζειν*, Io Pæan cantare. Cf. Festus, xix. 594. 20, Vitulans: from Ennius.

It appears then that the true origin of this name and of this ceremony it to have been much later than the death of Romulus, and to have had no connection with the circumstances of that event. Its date too, (iii Non. Julias or Quinctiles,) however near it might approach to a coincidence with the traditionary one of the death of Romulus, the Nones of the same month, was still entirely different from it.

iv. Æque notat Romulum periisse solis defectione[q]—Et cum orta subito tempestate non comparuisset anno regni trigesimo septimo ad deos transisse creditus consecratus est[r]—Discerptum aliqui a senatu putant ob asperius ingenium: sed oborta tempestas solisque defectio consecrationis speciem præbuere[s]—*Συνήρατο δὲ αὐτοῖς πρὸς τὸ λαθεῖν ζάλη μεγίστη τοῦ ἀέρος καὶ ἔκλειψις ἡλίου· ὅπερ που καὶ ὡς ἐγεννᾶτο ἐγένετο*[t].

v. *Τὸ δὲ ὅλον ἐξ ἡλίου κατῆλθεν ἡ ψυχὴ τοῦ θεοῦ Κυρίνου. πειστεόν γὰρ οἶμαι τῇ φήμῃ. σύνοδος ἀκριβὴς τῶν τὴν ἐμφανῆ καταvειμαμένων βασιλείαν, ἡλίου τε καὶ σελήνης, ὥσπερ οὖν εἰς τὴν γῆν κατήγαγεν οὕτω καὶ ἀνήγαγεν ἣν ἀπὸ τῆς γῆς ἐδέξατο, τὸ θνητὸν ἀφανίσασα πυρὶ κεραυνίῳ τοῦ σώματος*[u].

vi. Apud Capreæ Paludem Nonis Quinctilibus apparere desiit[w]—Indutus autem toga est (Commodus) Nonarum Juliarum die quo in terris Romulus non apparuit[x].

vii. *Λέγεται γὰρ ἐκκλησίαν ἄγοντος αὐτοῦ περὶ τὸ καλούμενον Αἰγὸς ἕλος τοῦ μὲν ἡλίου τὸ φῶς ἐπιλιπεῖν νύκτα δὲ κατασχεῖν, βροντὰς δὲ δεινὰς συμβῆναι καὶ πνοὰς ἀνέμων ζάλην ἐλαυνούσας. ἐν δὲ τούτῳ τὸν μὲν ὄχλον φυγεῖν τοὺς δὲ δυνατοὺς συστραφῆναι μετ᾽ ἀλλήλων κ᾽, τ. λ.*[y]

viii. *Οὕτως περὶ τὴν Ῥωμύλου σπορὰν καὶ καταβολὴν τὸν ἥλιον ἐκλιπεῖν ἱστοροῦσι ποιησάμενον ἀτρεκῆ σύνοδον πρὸς σελήνην…*

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was something which happened the year after the capture of the city by the Gauls, B. C. 388 or 387. Cf. Livy, vi. 2–4: Plutarch, Camillus, xxxiii–xxxv. There could have been no such day in the calendar until then. There is no doubt a difficulty connected with the fact itself, and with its place in the contemporary history: but there can be no question about the distinction of the day on which it happened from the day of the death of Romulus.

[q] Seneca, Opp. iii. 323. Epp. 108. 31.

[r] Eutropius, i. 2.

[s] Florus, i. i. § 17. (cf. Appian, De Bell. Civ. ii. 114.) The testimony of Proculus follows.

[t] Anecdota Græca Par. ii. 6. 1. The testimony of Proculus follows here too.

[u] Julianus Imperator, Opp. 154. C. D. Oratio iv.

[w] Solinus, i. § 20.

[x] Historiæ Aug. SS. Lampridius, Commodus, 2.

[y] Zonaras, vii. 4. 319. D—320. A. The testimony of Proculus follows.

τοῦτο δὲ συντυχεῖν τῷ Ῥωμύλῳ καὶ περὶ τὴν μετάστασιν αὐτὴν τοῦ βίου. λέγουσι γὰρ ἐκλείποντος τοῦ ἡλίου ἠφανίσθαι Νόναις Καπρατίναις, ἣν ἄχρι νῦν ἡμέραν ἐπιφανῶς ἑορτάζουσι[z]—*Ἠφανίσθη δὲ Νόναις Ἰουλίαις ὡς νῦν ὀνομάζουσιν, ὡς δὲ τότε Κυντιλίαις· οὐδὲν εἰπεῖν βεβαιὸν οὐδὲ ὁμολογούμενον πυθέσθαι περὶ τῆς τελευτῆς ἀπολιπὼν ἀλλ' ἢ τὸν χρόνον, ὡς προείρηται. δρᾶται γὰρ ἔτι νῦν ὅμοια τῷ τότε πάθει πολλὰ κατὰ τὴν ἡμέραν ἐκείνην...ἕτεροι δ' οἴονται...τυχεῖν μὲν ἔξω περὶ τὸ καλούμενον Αἰγὸς ἢ Ζορκὸς ἕλος ἐκκλησίαν ἄγοντα τὸν Ῥωμύλον, ἄφνω δὲ θαυμαστὰ καὶ κρείττονα λόγου περὶ τὸν ἀέρα πάθη γενέσθαι, καὶ μεταβολὰς ἀπίστους. τοῦ μὲν γὰρ ἡλίου τὸ φῶς ἐπιλιπεῖν, νύκτα δὲ κατασχεῖν οὐ πρᾳεῖαν οὐδὲ ἥσυχον, ἀλλὰ βροντάς τε δεινὰς καὶ πνοὰς ἀνέμων ζάλην ἐλαυνόντων πανταχόθεν ἔχουσαν*[a], *κ. τ. λ.*—*Ἡ δ' ἡμέρα ᾗ μετήλλαξεν ὄχλου φυγὴ καλεῖται, καὶ Νόνναι Καπρατίναι* * *διὰ τὸ θύειν εἰς τὸ τῆς Αἰγὸς ἕλος ἐκ πόλεως κατιόντας. τὴν γὰρ αἶγα κάπραν ὀνομάζουσιν*[b].

With regard to the day which was truly to be called *Ὄχλου φυγὴ* or Populifugia, and its site in the calendar, we have referred to the proper testimony, supra[c]. The Nonæ Quinctiles or Nonæ Juliæ were certainly called Nonæ Caprotinæ also: and for a reason which Plutarch himself proceeds to

* Plutarch we observe expresses the epithet, which characterized this day, by *Καπρατίναι*. But it was more correctly written Caprotinæ.

Varro, De Lingua Lat. v. 56. Nonæ Caprotinæ, quod eo die in Latio Junoni Caprotinæ mulieres sacrificant, et sub caprifico faciunt, et e caprifico adhibent virgam, ob hoc toga prætexta data eis. The text of Varro is no doubt defective here. But enough appears in it to shew that the day derived its name not from *capra* a she goat, but from *caprificus* the wild fig tree: the reason being that the signal concerted between the *ancillæ* or maid servants, and their masters and mistresses, on this day was hung from a wild fig tree.

Ausonius, De Feriis Romanorum, 385. 9.

> Festa Caprotinis memorabo celebria nonis,
> Cum stola matronis demta tegit famulas.

Ovid, De Arte Amandi, ii. 257.

> Porrige et ancillæ qua pœnas luce pependit
> Læsa maritali Gallica veste manus.

That is, the stola matronalis, assumed by the ancillæ on this occasion to personate the character of the matrons.

See the whole story, related by Plutarch, Romulus, xxix. and Camillus, xxxiii. (cf. Parallela, xxx.) and by Macrobius, Saturnalia, i. 11. 251, 252.

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[z] Plutarch, De Fortuna Romanorum, viii.

[a] Romulus, xxvii. The testimony of Proculus follows.

[b] Ibid. xxix.

[c] Page 120.

subjoin: shewing that this day acquired its name in the time of Camillus, to commemorate an event the particulars of which are circumstantially related both here in the life of Romulus, and again in the life of Camillus; *Εἰ μή*, as he observes here, *τῆς αὐτῆς ἡμέρας ἐν χρόνοις ἑτέροις ἀμφότερα τὰ πάθη συνέτυχε γενέσθαι.* And this is no doubt the true explanation of the coincidence; viz. that both the death of Romulus, and the event commemorated by the Nonæ Caprotinæ, at different times happened on the same day of the same month. Τοῦτο *δὲ γενέσθαι* (i. e. the latter) *ταῖς νῦν Ἰουλίαις τότε δὲ Κυϊντιλίαις Νόνναις· καὶ τὴν ἀγομένην ἑορτὴν ὑπόμνημα τῆς πράξεως ἐκείνης εἶναι...ἕτεροι δὲ τούτων τὰ πλεῖστα δρᾶσθαι καὶ λέγεσθαί φασιν ἐπὶ τῷ Ῥωμύλου πάθει. κατὰ ταύτην γὰρ ἀφανισθῆναι τὴν ἡμέραν αὐτὸν ἔξω πύλης, ζόφου καὶ θυέλλης ἄφνω περισχούσης, ὡς δ' ἔνιοι νομίζουσιν ἐκλείψεως ἡλίου γενομένης. καὶ τὴν ἡμέραν ἀπὸ τούτου Νόννας Καπρατίνας κληθῆναι· τὴν γὰρ αἶγα κάπραν ὀνομάζουσιν. ὁ δὲ Ῥωμύλος ἠφανίσθη δημηγορῶν περὶ τὸ τῆς Αἰγὸς ἕλος προσαγορευόμενον, ὡς ἐν τοῖς περὶ ἐκείνου γέγραπται*[d].

Lastly: *Ἕβδομον ἐνιαυτὸν ἡ Ῥώμη καὶ τριακοστὸν ἤδη Ῥωμύλου βασιλεύοντος ᾠκεῖτο. πέμπτῃ δὲ ἱσταμένου μηνὸς, ἣν νῦν ἡμέραν Νόννας Καπροτίνας καλοῦσι, θυσίαν τινὰ δημοτελῆ πρὸ τῆς πόλεως ὁ Ῥωμύλος ἔθυε περὶ τὸ καλούμενον Αἰγὸς ἕλος· καὶ παρῆν ἥτε βουλὴ καὶ τοῦ δήμου τὸ πλεῖστον. ἐξαίφνης δὲ μεγάλης περὶ τὸν ἀέρα τροπῆς γενομένης, καὶ νέφους ἐπὶ τὴν γῆν ἐρείσαντος ἅμα πνεύματι καὶ ζάλῃ, τὸν μὲν ἄλλον ὅμιλον ἐκπλαγέντα συνέβη φυγεῖν καὶ σκεδασθῆναι, τὸν δὲ Ῥωμύλον ἀφανῆ γενέσθαι, καὶ μήτε αὐτὸν ἔτι μήτε τὸ σῶμα τεθνηκότος εὑρεθῆναι*[e].

SECTION VII.—*Confirmation of the above statements by the testimony of the Calendar of Romulus.*

From the concurrence of testimony then on this point it may be safely inferred that it must have always been handed down traditionally, and always been believed among the Romans, that the last appearance of their founder in public was accompanied by certain extraordinary circumstances; by a sudden obscuration of daylight, by a convulsion of the elements, a storm and tempest: in the midst of which he was lost from view, and after which he was no where seen alive again. It may be collected too that the proximate cause of the darkness at such a time, perpetuated by tradition also, was an eclipse of the sun. It appears likewise that the date of both events, both this eclipse and the disappearance of Romulus, was the day which in the calendar of Numa was called Nonæ Quinctiles, and in the calendar of Cæsar Nonæ Juliæ; the former altogether the same day of the same month in the old calendar, as the latter in the new. Whether there was any day so called in the calendar of Romulus does not appear; but whether there was or not the place of the day in its proper month will still be the same, the 7th of the month for the time being: whether the fifth month, as in the calendar of Romulus, or the sixth, as in that of Numa, or the seventh, as in that of Cæsar.

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[d] Cf. also Camillus, xxxiii.

[e] Numa, ii. Cf. Cicero, De Legibus, i. 1: De Republica, ii. 58, 59. Somnium Scip. 7. Macrobius, Somnium Scip. ii. 11. 162, 163. Auctor De Viris, Romulus. Lucan, Phars. i. 197. and Schol. in loc. Augustin, De Civitate Dei, iii. 15. The testimony of Proculus follows in Plutarch. Cf. Tertullian, Opp. i. 198. adv. Marcionem, iv. 7. Cyprian, De Idolorum Vanitate, Opp. p. 12. Arnobius, i. 24. Lactantius, i. 15. Minucius Felix, Octavius, xxiii. 2.

It may be reasonably inferred from these testimonies too that, if Romulus' disappearance at this time was the effect of contrivance, (of which no one, we should think, could doubt,) and if he was actually made away with under cover of the darkness in question, without detection, and even his body was so effectually disposed of that no traces of it were afterwards to be seen[f]; the eclipse preceded or accompanied by the storm and the darkness in all probability must have set in towards the end of the day. And this conclusion is strongly confirmed by the part which the same accounts ascribe to Julius Proculus, and by the alleged apparition of Romulus to him; which they all suppose to have taken place the *same night*, or early the *next morning*: but none of them on the same day.

Now the epoch of the calendar being assumed, in conformity to what we have already concluded, as February 4 at midnight B.C. 750; and the reckoning of noctidiurnal and annual time being supposed to have begun and gone on in this calendar from that epoch, (subject to the proper law of the calendar itself, and consequently receding in every year of its own 61 days on the Julian year of 365 days, and 62 on the Julian year of 366,) from B.C. 750 to B.C. 715;

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[f] Plutarch, Romulus, xxvii. Numa, ii. Livy, i. 16. 49. Dionysius, ii. 56.

it is found that B. C. 715 the epoch was falling on January 20 at midnight: and consequently the 126th day *inclusive* from the epoch *exclusive* was falling on May 26 at midnight. We have determined nothing as yet of the lengths of the months in the calendar of Romulus; but we shall see reason hereafter to conclude that they followed one of two rules: i. e. either they were all of the same length, and all 30 days long, with a remainder of four days at the end of the year which entered into none of them; or the first six months at least, like those in the calendar of Numa, consisted of 31 days and of 29 days alternately. According to either of these suppositions, the 127th day of the calendar would fall on the 7th of the fifth month; and, if the Julian date of the first day of the first month in a given year (not a leap year) was January 20 at midnight, that of the 7th of the fifth month would be May 26 at midnight.

Now it appears from the tables of Pingrè that there was an eclipse of the sun B. C. 715, on May 26, at 5.30 P. M. Paris. We have calculated this conjunction afresh for ourselves, and we find,

		h.	m.	s.	
The mean new moon	May 26.	7	58	44	mean time Greenwich.
	May 26.	8	48	33	mean time Rome.
		h.	m.	s.	
The true new moon	May 26.	16	33	10	mean time Greenwich.
	May 26.	17	22	59	mean time Rome.

The sun's distance from the node at the time of the mean conjunction appears to have been only about 5° 16′ 29″, and at that of the true only about 5° 40′ 9″; and even the latter of these must have been 12° 56′ within the extreme limits of a solar eclipse: so that there was doubtless a very considerable eclipse on this day and at this time, and very possibly even for the meridian of Rome; though whether it would be total for the latitude of Rome, we do not undertake to say: but some competent person, as we before observed, who takes an interest in such questions as these, may perhaps think it worth his while to enquire. We have calculated also the time of sunset on this day, for the latitude of Rome; and we have found that true sunset would take place May 26 B.C. 715, at Rome, about 19 h. 14 m. 43 s.; and apparent (including the effect of refraction) about 19 h. 16 m. 55 s.

apparent time, 19 h. 7 m. 21 s. mean time: on which principle, if the middle of the eclipse coincided with 17 h. 22 m. 59 s. mean time; it must have preceded sunset by 1 h. 44 m. 22 s. An eclipse of such magnitude would last 3 or 4 hours; and if it was at its middle about 17 h. 23 m. it would be beginning about 15 h. 23 m.

The length of the diurnal hour in kairic time, on this principle too, being 1 h. 12 m. 49 sec. the ixth hour of the day would begin to be current at 14 h. 25 m. 38 sec; and the xth at 15 h. 38 m. 27 sec. It appears from the testimonies cited *supra*, and in particular from Livy's, that Romulus was reviewing his army ad Capræ Paludem, when the eclipse, accompanied or followed by the storm and the darkness in the midst of which he disappeared, came on. There is a statement in Lydus De Mensibus[g], from which, if it can be depended on, it must be inferred that Romulus was accustomed to do this at the *ninth* hour of the day: Οἱ δὲ Μάγγιπες οἱονεὶ τεχνῖται τοῦ ἀνδραποδώδους ἄρτου ἔπεμπον τοῖς ἐν λόγῳ Ῥωμυλίας ἀννώνας. οὕτω δὴ ταύτας ἐκάλουν διὰ τὸ κατὰ τὴν ἐννάτην (ὥραν) ἐπιδίδοσθαι (corr. ἐπιδεδόσθαι) πρὸς τοῦ Ῥωμύλου τὴν τροφὴν τοῖς στρατιώταις. There are many singular things in the fragments of this author, which it is not easy to find elsewhere; and this is one of the number. It is an obvious inference from this statement that he took *annona* to be ultimately derived [illegible] *ad nonam*. We are bound however to suppose that l[illegible]d some authority or other for every thing which he as[illegible]; and it is certainly nothing incredible that even Romu[illegible] might have had stated times for reviewing his soldiers, or [illegible]r issuing pay to them: and that the ninth hour of the day [illegible]ight be one. Now the ninth hour, in that case, not only from the reason of things, but also in deference to the idiom of antiquity, must be understood of the end of the ninth, and of the beginning of the tenth; and B.C. 715 on May 26 this would be, as we have seen, at 15 h. 38 m. 27 s. from midnight, or at 3 h. 38 m. 27 s. P.M. If the proceedings of this day which ended in the disappearance of Romulus actually began at this time, it would be only 15 minutes later than the probable beginning of the eclipse also; i. e. as we have concluded, about

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[g] iv. 30. 69. l. 16.

3 h. 23 m. P. M.: which every one must allow to be a remarkable coincidence, and well calculated to authenticate the traditionary account of the circumstances of this whole transaction, as they are represented above*.

It seems then that no eclipse could have been better adapted than this of May 26 B. C. 715, to answer to the description of that particular one, which Roman tradition had invariably handed down as coincident with the time of the disappearance of Romulus. It is agreed that the traditionary date of this eclipse in his own calendar was the 7th of the fifth month. It is certain that the Julian date of the eclipse B. C. 715 was May 26: and not less so that in the calendar of Romulus, brought down according to its proper law, but in terms of the Julian calendar perpetually, from Feb. 4 B. C. 750 to Jan. 20 B. C. 715, the Julian May 26 fell on the 7th of the fifth month. These coincidences both together constitute a chronological and an astronomical argument of the truth of our conclusions on every point relative to the calendar of Romulus, (its nature, as consisting of ten months and 304 days and no more, its epoch, both the year, B. C. 750, and the day, February 4,) already established, which cannot easily be shaken. The simple succession of day and night, in that calendar and from that epoch, takes us unerringly to May 26 B. C. 715, as the date of the 7th of the 5th month in the 43d year of its own decursus.

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* It is very observable that if the first day of the year in the calendar of Romulus was Nundinal, i. e. fell on the *Feria prima* of the Nundinal cycle, neither the 80th day nor the 127th would be so. The former would fall on the Feria 8ª of the cycle, the latter on the Feria 7ª. It follows that Rome could not have been founded on a Nundinal day, B. C. 750; nor could Romulus have been reviewing his army on a Nundinal day, B. C. 715. We shall see reason hereafter to conclude that it was the rule at Rome from time immemorial to do nothing publicly, which would interfere with the proper business of the Nundinal day. That day seems to have been reserved for its own uses and purposes from the first. It was not to be expected then *a priori* that either the ceremony of the Foundation or this concluding scene of the life of Romulus would fall on a Nundinal day. And each of these coincidences should be allowed its weight. They are of the number of those minute circumstantial characters of truth, which nothing will account for in a particular instance but the matter of fact.

Astronomy discovers in this year and on this day the date of an eclipse of the sun, which requires only to be compared with the traditionary characters of that which accompanied the disappearance of Romulus, to be seen to be the same.

SECTION VIII.—*On the further confirmation of the eclipse at the death of Romulus, May* 26 B.C. 715, *by the eclipse of June* 21 B.C. 400.

The recovery of a considerable portion of Cicero's treatise De Republica, (to which we have already adverted,) has brought to light also the Roman date of an eclipse of the sun; the importance of which to the illustration and confirmation of our Roman calendar, long after the time of Romulus, is very great: and yet even to this question of the death of Romulus, and of the eclipse at his death, it is important also.

The date of this treatise, referred to the chronology of the life of Cicero himself, was B.C. 54[h]. Its hypothetical date is the consular year of Tuditanus and Aquillius, U.C. 625 of Varro, B.C. 129; not many days before the death of P. Cornelius Scipio Africanus Æmilianus, or Scipio the younger, the principal speaker in the dialogue itself[i]. The scene is laid in the house of Scipio, during the feriæ Latinæ of that year[k]: Nam cum P. Africanus hic Paulli filius feriis Latinis Tuditano cons. et Aquillio constituisset in hortis esse, familiarissimique ejus ad eum frequenter per eos dies ventitaturos se esse dixissent; Latinis ipsis mane ad eum primus sororis filius venit Q. Tubero &c. The conversation begins with an allusion to the recent appearance of a second sun[l]. It passes afterwards to the subject of eclipses[m]; in the prosecution of which mention is made of the lunar eclipse before the battle of Pydna[m], and of the solar eclipse in the time of Pericles[n]. And then the person speaking, (Scipio,) with reference to the causes of phenomena of this latter kind (eclipses of the sun), observes: Erat enim tum hæc nova et ignota ratio, solem luna opposita solere deficere: quod Thaletem Milesium primum vidisse dicunt. id autem postea ne nostrum quidem Ennium fugit, qui ut scribit, anno trecentesimo et quinquagesimo fere post Romam conditam, Nonis Juniis

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[h] Ad Atticum, iv. 16: cf. 14. Ad Quintum Frat. iii. 5: cf. 11. 14.

[i] Cf. De Natura Deorum, ii. 5: Tum sole geminato, quod ut a patre audivi Tuditano et Aquillio consulibus evenerat, quo quidem anno P. Africanus sol alter exstinctus est. Also, iii. 32: and De Divinatione, i. 43: Vell. Pater. ii. 4: Livy, Epitome, lix.: Plutarch, Romulus, xxvii.

[k] Lib. i. p. 11. Ad Quintum Fratr. iii. 5: it is supposed to have been laid at certain Feriæ Novendiales, or extraordinary occasion of the kind, in the consular year of Tuditanus and Aquillius; unless Cicero meant the Latinæ by these novendiales feriæ. Cf. De Amicitia, 4, 7.

[l] Lib. i. [m] Ib.

[n] Ib.

Soli luna obstitit et nox.

atque hac in re tanta inest ratio atque sollertia ut ex hoc die, quem apud Ennium et in Maximis Annalibus consignatum videmus, superiores solis defectiones reputatæ sint, usque ad illam quæ Nonis Quinctilibus fuit regnante Romulo: quibus quidem Romulum tenebris etiamsi natura ad humanum exitum abripuit virtus tamen in cœlum dicitur sustulisse.

This eclipse is not noticed by Livy, though in the regular course of his history it should have come in, v. 10—12[o]. We have already had occasion to allude to it, as authenticating the date of the urbs condita, according to the Annales Maximi, B. C. 749. Referred to B. C. 748, the year after this, an eclipse on the Nones of June U. C. 350 must have happened B. C. 399; referred to B. C. 749 it must have happened B. C. 400. There is a solar eclipse in Pingrè June 21 at 7 h. 15 m. P. M. Paris B. C. 400, and another, June 11 at 0 h. 15 m. P. M. Paris B. C. 399; and according to our Roman calendar of the time being, (which is the Decemviral correction of that of Numa,) both June 21 B. C. 400 and June 11 B. C. 399 fell on the Nones of June: so that the truth of our calendar itself would be attested and confirmed by one of the most authentic criterions, to which we could appeal on its behalf, whichever of these eclipses was that which Cicero recorded from Ennius. And it is another singular coincidence, such as nothing but the truth could have brought about, that the Julian dates of the Nones of June in these two years respectively were only ten days asunder; and the Julian dates of these two eclipses were only ten days asunder also. Between the two however, we cannot hesitate to conclude that the eclipse of the Annales Maximi and of Ennius must have been that of B. C. 400, not that of

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[o] Cf. v. 13, 14.

B. C. 399; for this latter, according to Pingrè, was a trifling eclipse, scarcely perceptible; an *attouchement* merely: but the former for the latitude of 41° 46′ 35″ N (only 18 minutes less than that of Rome) was central.

It may indeed be objected even to this eclipse at first sight that if its date was really according to Pingrè, 7 h. 15 m. P. M. for the meridian of Paris, and 40 minutes later for that of Rome, it must have happened for that meridian after the sun was set. But in reality even this is no objection; or rather, on the contrary, it is a further proof of the identity of this eclipse with that of Ennius. For it is clearly to be inferred from the language of Ennius, as quoted by Cicero, that the sun went down eclipsed—

> Soli luna obstitit et nox.

The night had as much to do with the obscuration of the sun's light on this occasion as the moon. Now in an eclipse of such magnitude, and of such probably long duration, though the middle might have been later than sunset, the beginning could not have been so; and the sun must have been more or less eclipsed even at sunset itself.

But, as we have already observed[p], if any thing depends on the accuracy of these calculations of Pingrè, we have no alternative except to go over them again. This ecliptic conjunction being calculated afresh from our own Tables, we find

		h.	m.	s.	
The mean new moon,	June 22	1	37	37	mean time Greenwich.
	June 22	2	27	26	mean time Rome.

		h.	m.	s.	
The true new moon,	June 21	17	48	44.5	mean time Greenwich.
	June 21	18	38	33.5	mean time Rome.

The sun's distance from the node, at the mean conjunction, was about 8° 32′ 30″; and at the true, about 7° 24′ 27″: which was nearly 11° 12′ within the extreme limits of a solar eclipse. So that there can be no doubt of the fact of a very considerable eclipse at this conjunction; though of what magnitude at Rome in particular, we leave to the astronomers to decide. We have calculated also the time of sunset on this day for the latitude of Rome; and we find that true sunset would take place there, June 21 B. C. 400, about 19 h. 32 m. 18 s. and apparent sunset inclusive of the effect of refraction about 19h. 34m. 30s. apparent time, about 19 h. 29 m. 13 s. mean time: i. e. only 50 min. 39 seconds later than the middle of the eclipse also, according to our calculation. And this we think is a sufficient confirmation of the construction which we have put on the language of Ennius, as well as of the matter of fact itself; viz. that the sun must have gone down more than half-eclipsed: so much so that very possibly its disappearance on this occasion might have been followed by almost total darkness, because there would be little or no twilight.

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[p] Supra, p. 114.

The most observable circumstance however in Cicero's account of this eclipse is that it had served as the base of calculations carried backwards, and intended to discover every phenomenon of the same kind up to that which tradition attached to the Nones of Quinctilis in the reign of Romulus. Macrobius might have understood this statement of Cicero's as if he himself had so applied it[q]; but that would be a mistake. Cicero does not say that he himself had made use of this eclipse for any such purpose; but only that others had done so: and we have little doubt that by those others he meant Varro and Tarutius. It was at this very time, B. C. 54, (the true date of this dialogue in the life of Cicero,) or just before, that they were engaged on those calculations by which they determined the Varronian epoch of the Foundation; and we have already produced proof, from Censorinus[r], that one of the instruments employed by Varro in his chronological researches, and for fixing the principal dates in his system, was the Chaldaïc Saros.

If such an use was actually made of this eclipse of June 21 B. C. 400, we cannot desire a stronger proof of its authenticity. But an application, like that, of the eclipse of June 21 B. C. 400 serves reflexively to confirm that of the death of Romulus; the general belief at least of the most learned and best informed of the Romans in the fact of the eclipse at the death of Romulus. There were many points of resemblance between this eclipse of B. C. 400, (comparatively of recent date, and historically so well attested,) and that which tradition had perpetuated of the death of Romulus. Both happened on the same day of the month, the Nones; one too on the Nones of Quinctilis, the other on the Nones of Junius: i. e. only one month asunder in the order of months at the utmost. Both happened at the same season of the year in general, in the spring or in the summer. But the most remarkable coincidence between them, and that which would probably operate most powerfully to make the inquisitive Romans of later times set about discovering the eclipse of Romulus from this of the Annales Maximi and of Ennius, was probably the fact that both happened towards the same time of the day, and both towards evening or sunset. The sun went down eclipsed on the Nones of June; and, as common belief seemed to imply, the sun must have gone down eclipsed on the Nones of Quinctilis. If eclipses and their characters were liable to come round in a cycle or period of some kind, or were thought to be so; these coincidences would be sufficient to make this eclipse of June 21 B. C. 400 appear to be the one thing needful to find out that of May 26 B. C. 750: the instrument necessary for the purpose of conducting from the one to the other being of course the Saros*. Laying all these considerations then together, we may infer first that Ennius' eclipse of the Nones of June was a real phenomenon of its kind actually witnessed at Rome; and secondly that the eclipse of tradition of the Nones of Quinctilis, *mutatis mutandis,* as the counterpart of that, or supposed to be so, was real too, or confidently believed to have been so*.

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[q] Somnium Scip. ii. 12. 162, 163. Macrobius is speaking here of a great period of 15000 years, in which the same eclipse would recur in all its circumstances; and as if Cicero, having calculated back from some epoch or other, (probably this eclipse of the Annales Maximi and of Ennius,) had attached this great cycle to the eclipse at the death of Romulus; cf. Augustin, De Civitate, iii. 15.

[r] Supra, p. 32.

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* The most convenient form of the ecliptic cycle, for calculation either backwards or forwards, is that of the ἐξελιγμὸς, which appears to have been the proper Greek version of the Chaldaïc term Sar or Saros itself. See our Fasti Catholici, iv. 91: 100. Diss. xv. ch. xiii.

In this form it was exclusively adapted to the equable year of 365 days; and the sum of equable time in every such cycle of the Saros was 54 years, 46 days, perpetually. Seven cycles of this kind then would = 378 equable years, 322 days exactly.

Now the equable date of the eclipse of June 21, B.C. 400, as our Tables shew, was Nab. 348 (= Æra Cyc. 3607) Phamenoth 23, that is, the 203rd day of the equable year. Hence, given

An eclipse of the sun, Æra Cyc. 3607 at 203 days,
Subtract seven cycles of the ἐξελιγμὸς = −378 322

And you come to an ecliptic conjunction, Æra Cyc. 3228 at 246 days, that is, Pachon 6, Æra Cyc. 3228; which at that time was = Pachon 7.

CHAPTER III.

On the derivation of the Calendar of Romulus from an older and preexisting Calendar of the same kind.

SECTION I.—*Apparent inconsistency that the epoch of the Calendar of Romulus should have been one thing and that of the Foundation another.*

It would thus appear, as the final result of our inquiries, that the epoch of the calendar of Romulus was one day,

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The first of Thoth, Æra Cyc. 3228, at midnight fell on March 5 B.C. 779 at midnight. Consequently Pachon 7 at midnight on November 6 at midnight, B.C. 779. There is no eclipse of the sun in Pingrè November 6, B.C. 779; but there is one the year before, November 17, B.C. 780; which proves that November 6 B.C. 779 was the date of the new moon at least. On the principles of the Saros, carried back from June 21 B.C. 400, it must have been considered ecliptic. Now B.C. 779 was the 16th year of the first cycle of the ἐξελιγμὸς, reckoned from its proper epoch, the solar eclipse of August 26, B.C. 794. From this base the entire succession of solar eclipses might be traced in the Saros down to that of June 21 B.C. 400.

* It will scarcely be objected to our conclusions that by dating the Foundation April 24, B.C. 750, and the death of Romulus May 26, B.C. 715, we abridge his reign too much; and on this principle make it only 35 years long. It is the fashion in our time to decry all these reigns between the Foundation and the Regifuge as too long. But though Romulus had a long reign, according to any calculation which could be made of it, he had a very short life. Macrobius however assigns his reign only 32 years, De Somnio Scip. ii. 11. 163; though it is found most commonly stated at 37 or 38. Cf. Livy, i. 21: Dionys. Hal. i. 75: ii. 56: Cicero, De Republica, ii. 58: Plutarch, Romulus, xxix: Numa, ii: Pliny, H. N. xiii. 27. 741: Solinus, i. 19: Eutropius, i. 2: Anecdota Par. ii. 6. 1–4, Περὶ ἐπιβουλῶν κατὰ βασιλέων: Eusebius, Chron. Arm. Lat. i. 175.

February 4, and that of the foundation of the city was another, April 24; yet each in one and the same year, B. C. 750. On the first view of the case, this must seem to be inconsistent. What was more naturally to be expected *a priori* than that civil or calendar time at Rome, and peculiar to Rome, would be found to have borne date from the foundation of Rome? that the city of Romulus and the calendar of Romulus should both have come into being on the same day, and should both have reckoned their continuance in being ever after from that one day?

To this very natural objection the proper answer is supplied by a matter of fact to which we may have generally adverted already, but the proofs of which have not yet been laid before our readers; viz. That the calendar of Romulus, though the first civil calendar which was ever in use at Rome, was not the first calendar of its proper kind any where in existence; that it did but take up and modify, and continue, an older calendar of the same kind: and in particular that it borrowed its epoch from this older calendar. Under these circumstances it may possibly no longer appear extraordinary that the day of the Foundation and the epoch of the calendar should have been distinct, even in the same year. There might be special reasons for that distinction; and reasons which may perhaps be discovered as we proceed with our inquiries. But we must first pass to the proof of *this* point, and through that to the final confirmation of the epoch of the calendar of Romulus; viz. its direct and immediate connection with a preexisting calendar, of which it was only the continuation, howsoever much it might differ from it in some things peculiar to itself.

And here it might be supposed *a priori* that, as Rome was a colony of Alba Longa, and its founder, if a citizen of any city of Italy in particular, was so of Alba Longa, the calendar of Romulus, and therefore that of Rome, must have been that of Alba Longa. We shall perhaps see reason to conclude that even this presumption is not altogether mistaken; that Alba too had its proper calendar of the same kind in general as that of Romulus, and that even this might be said to have been virtually incorporated in his, and virtually continued by it. The truth indeed is that there were various forms of the same kind of calendar in general as that of Romulus; all agreeing with each other in a certain characteristic respect, and all actually older than his: but there was one with which the calendar of Romulus agreed more closely and completely than with any of the rest; one with which, (mutatis mutandis,) it might be said to have been identical: and yet this was not that of Alba Longa.

In fact the ultimate source of all these calendars, of one and the same kind in general, whether older or younger one in comparison of another, was the Primitive Equable year; the proper civil year of ancient Italy as well as of every other quarter of the ancient world, long before any correction or modification of it was yet in existence; and we may add too, in the particular case of those corrections and modifications of this calendar which appear to have been peculiar to ancient Italy, long afterwards also. In order then to prepare the way for the proof of the ultimate derivation of all these corrections peculiar to Italy from such a source as this, we must begin with stating the points of resemblance, relation, or analogy between the year of 304 days (the calendar year, as we have seen, of Romulus) and the year of 365 days, the Primitive Civil year.

SECTION II.—*Analogy of the year of* 304 *days to the year of* 365 *days.*

In the first place, the year of 304 days and the year of 365 days being each considered a particular form of the solar year in general; the former distributes itself into ten solar months of 30 days, and four days over of an eleventh month, as naturally as the latter into twelve solar months of 30 days, and five days over of a thirteenth. The former therefore as a solar year in general would be analogous to the latter as the same kind of year also. Its months would bear the same relation to the natural solar month. Its parts or details would be distributable in a similar manner. Even its epagomenæ, or imperfect month at the end of the year, would follow the analogy of those of the other. An imperfect month of four days would be almost in the same proportion to ten perfect months of 300 days, as one of five days to twelve of 360 days. In short, as far as two such forms of the civil year as these in general could be commensurable, and capable of being so disposed relatively to each other as to go on in conjunction perpetually, there would be apparently no difference between them, except that one would come to an end and begin again so much sooner than the other perpetually.

Secondly, the Primitive Civil year of 365 days, in comparison of one of 304 days, might be regarded as a fixed solar year in contradistinction to a revolving one. It is manifest that a year of 304 days must be liable to circulate round one of 365 days, like one of 365 days round the actual natural year or the actual Julian year, only at a much greater rate and in a much shorter interval of time. It is far from improbable therefore that even the first idea of this peculiar modification of the solar year might have been suggested by the nature of the Primitive solar year itself.

Thirdly, though *one* year of 304 days contains 61 days less than *one* year of 365 days; yet *six* years of 304 days contain only one day less than *five* years of 365 days: for six years of 304 days contain 1 824 days, and five of 365 contain 1 825. It is manifest therefore that a year of 304 days and one of 365 days, having once been adjusted together on any principle of relation, and having once begun to proceed in conjunction, would return to the same state of relation to each other as at first, within one day only, in six years of the former kind and in five years of the latter. The natural period of the restitution or ἀποκατάστασις of a year of 304 days in terms of one of 365 days would be six years of the former description and five of the latter perpetually. The head of the former year would return to the same state of relation to that of the latter, within *one* day, every six years of its own denomination, and every five years of the corresponding one.

It follows that a year of this kind, having once been adjusted in any state of relation to a year of the other description, might either be left to circulate round it perpetually, falling back upon it in reality only one day and night every six years; or kept constantly true to the relations of origination by intercalating it with a day every six years of its own, and every five years of the corresponding, denomination, just as the year of 365 days is kept constantly in a state of equality to the mean Julian year of 365 days 6 hours by intercalating it with a day at the end of every four years: for no one requires to be told that there is no difference between the actual Julian year and the equable year itself except in the fourth year of the same cycle of four years perpetually. Nothing would be easier then than to *equate* the year of 304 days to that of 365 days; were any purpose to be answered by so doing. The stated introduction into it of one day more at the end of every sixth year would produce that effect perpetually.

Now these are properties of the year of 304 days in relation to that of 365 days, (especially this last,) the first discovery of which could never have been left to be made by chance; but, if they were purposely contemplated beforehand and were always expected to hold good, they must be demonstrative of the derivation of this particular modification of the civil year from the Primitive. They prove that it must have been not only later in its origin than the Primitive, but borrowed from it and grafted upon it. They prove too, (especially the last-mentioned property of its stated return to the relations of origination after a given interval of time perpetually,) that this modification of the Primitive year never could have superseded it, nor ever have been independent of it. The Primitive year and this must always have gone on simultaneously and in conjunction; the former serving as the standard to which the latter was referrible perpetually: the former comparatively fixed and stationary, the latter circulating around it, and deviating from it within such and such limits for a stated interval of time, but always returning at the end of that time to the same state of relation to it, within one day, as at first.

SECTION III.—*On the nature of the year of* 304 *days, considered as a lunar year.*

It has been seen[s] that, whether out of deference to an uninterrupted tradition from the first, or because it was never known, nor even suspected, that any form of the civil year was actually in use at Rome, before the Julian, which was not lunar; the testimony of Roman antiquity represented the year of Romulus, no less than that of Numa, as a certain description of lunar year. The fact that Numa's year was lunar, and also in some manner or other was derived from that of Romulus, may certainly have contributed to this belief; and yet it does not seem competent to account for it altogether. It does not by any means follow that the calendar of Romulus must have been lunar, because it was superseded by one which undoubtedly was so. A very slight change in the details of its composition would be sufficient to turn a preexisting solar calendar into a lunar, or a preexisting lunar one into a solar. The Julian correction was both derived from the irregular Roman calendar and grafted upon it also; and the Julian correction was solar, the irregular Roman calendar previously in use was lunar, nominally indeed at all times, and at the particular time of the Julian correction almost actually so. We must suppose then that for the belief so generally entertained among the best informed of the Romans, that even their first calendar was lunar in some sense or other, there were other grounds than merely the analogy of the calendar which succeeded it. And among these none is more probable than an authentic and uninterrupted tradition to that effect.

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[s] Supra, p. 64.

It is agreed however that the year of Romulus consisted of 304 days only. No fact, in the history of the Roman calendar, can be considered better authenticated or more unquestionable than that. Yet this fact being compared with the other, of its being lunar also, it seems to be inconsistent with it; for that a particular form of the civil year should have been lunar, and yet have consisted of 304 days only, appears to be almost a contradiction in terms. What could seem to be more essential to any form of the calendar lunar year, than that it should be made up of a certain number of entire lunations? and what standard of the entire lunation could possibly have been assumed, at any period of the history of civil time and of lunar in conjunction, such as would make up 304 days exactly?

The true answer to this objection is That, after all, it is not indispensable to the nature, the idea, the constitution, the intention and the use, of a lunar calendar, merely in the sense of a civil one of that denomination, that it should consist of *entire* lunations. We may conceive the idea of a calendar of that kind which should consist of *parts* of lunations; and yet, if made up of integral parts perpetually, might properly be considered and styled a lunar calendar; and might answer every purpose which could be proposed by the use of a civil lunar calendar, in contradistinction to a civil solar one, just as much as if it consisted of entire lunar months.

Now this appears to have been exactly the state of the case with the calendar of Romulus, both as a lunar calendar in general, and yet as a lunar calendar *sui generis*. It consisted of *parts* of lunations, not of *entire* lunations. It was therefore truly a lunar calendar, as testimony represents it to have been; and yet it was not such a calendar of that kind as would be ordinarily understood to be meant by the name. It was not constructed on the ordinary principles of such calendars. It had a lunar standard, and a subdivision of that standard, peculiar to itself; and in this distinction we are furnished with the means of reconciling together both the facts which testimony substantiates concerning the year of Romulus; both that it was a lunar year and yet notwithstanding that it consisted of 304 days only.

Now the parts of the natural lunar month are of course the four quarters, taken in the order *in* which they present themselves, and *as* they present themselves, to the senses. The first which occurs to observation every where, the first to be noticed by the senses, and the first to suggest itself as the standard or measure of the rest, is the first of the four. The length of the first quarter, once determined, would naturally be considered the test or criterion of that of each of the rest. And as to the mode of determining this; the first and most obvious mode, it is to be supposed, would be that of sensible observation: the length of the first lunar quarter would be judged of by the evidence of the senses. The question is therefore what would be the decision of the senses themselves in this case? or what the standard of the lunar quarter, most likely to be fixed upon on such a principle of judgment as that?

This question in strictness requires to be treated as one of *fact*; and therefore to be decided in the same way as any other question of fact; viz. by testimony: and in the course of the next Dissertation, when we shall have to consider the correction of Numa, it will be necessary for us to treat it accordingly, and to collect the testimonies of antiquity to the supposed length of the first lunar quarter, such as it appears to the senses, on a very general scale. And the result of that inquiry we trust will be to prove that on this *one* point not only the *modus loquendi* of the common people, but even the idiom of astronomers, and the judgment of men of science and *men* of learning every where, were to the *same* effect. The *apparent* or sensible length of the first quarter, (which in the idiom of antiquity was called the first dichotomy,) was every where and by all assumed at *eight* days. Nor can it be objected that in leading to this conclusion the senses were materially in error. The fourth part of any conceivable standard of the mean lunation, and at any period of the history of the world, could never have been less than seven days complete and nine or ten hours of one more. The first integral division of the natural lunar month, reckoned from the change, must always have fallen on the eighth day. Nor was it a mistake to assume that the mean length of the first quarter must be that of the rest also. The error of judgment lay in assuming the eighth day to have been an integral part of the first quarter, as much as the seventh; and that was an assumption for which the senses themselves were not answerable: though whether, in the instance which we are considering, it was done under a misapprehension of the truth, and not rather, for reasons of a certain kind, on purpose, may very well admit of a question.

Now $304 = 38 \times 8$. A year of 304 days then would contain 38 lunar quarters of this kind, or lunar dichotomies, exactly; and the year of Romulus might have been limited to that number of days, and yet have been a lunar year too: only, as made up of lunar quarters, each of them eight days in length. And though to our better knowledge at present such an assumption of the mean standard of the quarter lunation must appear to be excessive; it does not follow that it was made at first in an ignorance of the truth, or that it involved any error either of theory or of application which was not deliberately admitted. It is evident that in a case of this kind, where a fixed standard of the lunar quarter in entire days and nights was to be assumed, the choice must have lain between seven days complete and eight days complete; the former of which would have been almost as much in defect, as the latter in excess, of the truth. But in the nature of things the civil standard of the mean lunation and the natural are so different that, though the latter is or ought to be the ultimate standard of reference for the former, the former is at liberty to deviate from it at all times within certain limits, and under some circumstances may cease to regard it at all, or may retain only a nominal agreement to it. Thus in the Toltec and Aztec calendar this civil standard was one of 26 days; and yet the authors of that calendar were very well aware that the true mean standard was four days greater.

In judging however of this peculiarity of the calendar of Romulus, the analogy of the calendar of Numa is by all means to be taken into account. The length of the first lunar quarter was a stated quantity in the calendar of Numa also; and in that calendar it was eight days exactly. The actual length of Numa's lunar year was 355 days, and that of his solar was 366; and yet it is demonstrable from the structure and details and administration of his calendar that the true mean lunar standard recognised by him was 354 days, and the true mean solar was the mean Julian one of 365 days 6 hours. If then those other assumptions, notwithstanding what they appear *prima facie* to imply to the contrary, would not really convict Numa Pompilius of an ignorance of the truth; neither can the *prima facie* appearance of the assumptions which entered the calendar of Romulus necessarily convict him, or whosoever was the first author of a calendar of that kind, of an ignorance of the truth. And yet the history of the octaëteric cycle of antiquity is a case in point on this question, to prove that lunar corrections of the Primitive solar year, which had been made originally under false impressions and on erroneous principles, might be retained for various reasons, and actually must have been retained, long after those errors had been detected by time[t]. The convenience and utility of such corrections in other respects more than compensated for their inherent defects; particularly after being sanctioned by a long prescription, and perhaps endued with a religious character, and, (what would be their most effectual safeguard and security,) having now become indispensable to the details both of public and of private life.

And this leads us to observe in the last place that the account thus given of the lunar year of Romulus, as formed on a certain cycle of parts of the lunar month, is strikingly confirmed by that peculiar measure of noctidiurnal time among the Romans, which is called the Orbis Nundinalis or Nundinal cycle, and its history. It is agreed that this Nundinal cycle ran through every form of the calendar from Numa's time downwards; and yet that it did not begin with Numa's. It was not first contrived for Numa's calendar. It was derived to it from that of Romulus. We cannot indeed enter on the full explanation of this subject at present. We will observe only first, That this Nundinal cycle was a cycle of eight days; just as the cycle of lunar quarters in the calendar of Romulus was one of eight days too. Secondly, The first Nundinal cycle in the calendar of Numa and the first lunar quarter of the standard of Romulus were coincident; from which we infer that in the apprehension of Numa this cycle and that standard were the same thing. Thirdly, This Nundinal cycle entered 38 times into the year of 304 days; and that standard of quarter lunations did the same. From all these coincidences then we cannot but infer that the cycle of lunar phases and the cycle of Nundinæ, both incorporated in this one form of the civil calendar, and one ever after coexistent with the other therein, were absolutely the same thing, under a different name; that both came into existence together at first, whensoever that was, and that both were intended to go on ever after in conjunction: and that both *de facto* did proceed ever after in conjunction, and one did accompany the other, whether under the same name or not. Consequently the most appropriate name which we can give to this peculiar form of the civil year, so made up of integral quarter lunations, is that of the NUNDINAL LUNAR year; by which name we propose henceforwards to designate it.

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[t] Fasti Catholici, i. 103. Diss. iii. ch. iii. sect. iv.

If this Nundinal lunar year therefore was sometime or other derived from the Primitive solar year, the Nundinal correction in question, peculiar to ancient Italy, was so far analogous to almost every other of the same Primitive year, that in this instance too the first and most direct transition must have been from a certain form of the solar year to a certain form of the lunar. We have seen however that, from the nature of the correction itself, it could not supersede, nor dispense with, the Primitive solar year. It must both be derived from it at first, and also associated with it ever after. In which respect this Nundinal lunar correction of ancient Italy would stand in much the same kind of relation to the Primitive solar year, as the Primitive Apis cycle; the natural form of the lunar year inseparable from the Primitive form of the solar[u].

Now as this Nundinal lunar year did not consist of complete lunations, only of complete parts of the lunation, and those 38 in number; it is self-evident that it must contain on the whole nine complete lunations, and one half of a tenth, perpetually: from which it must follow that it could not both begin and end at the same period of the natural lunar month or corresponding civil lunation; but if it began at one particular period, it must end at the opposite one. For example, if it began at the new moon, it must end at the full moon; if it set out from the full moon it must terminate at the new: and so on alternately, in a perpetual cycle. This particular property of such a year, being inherent in its constitution and being the necessary consequence of its own principles and assumptions, cannot be considered accidental. It must have been contemplated by its author or authors from the first. It must have made part of the original conception of such a form of the lunar year that it should neither set out from one state of the phasis nor return to one state of the phasis perpetually; but should alternate from a given phasis to the opposite one. And probably it was a point of religion too from the first that such should be the case; that the calendar reckoning of mean natural lunar time should thus be shifted from some one principal lunar phasis to the opposite one perpetually.

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[u] See our Fasti Catholici, i. 97: Diss. iii. ch. iii. sect. ii. 559: Diss. vii. ch. iii. sect. i. ii. 489: Diss. xiii. ch. ii. sect. v.

And with respect to the epoch of such a year, or that particular state of the lunar revolution from which it might be expected to set out; we may presume that, being founded on a cycle of lunar phases obvious to the senses, it must have set out in the first instance from one of those epochs in the natural lunar month of which the senses are most competent to judge. Now such an epoch is not the new moon or change; because that is necessarily invisible. Neither is it the first visible appearance of the moon after the conjunction; because that would be a false criterion of the beginning of the lunar month. It might indeed be the first dichotomy; and it might be the second: of each of which a sufficiently accurate idea might be formed even from the evidence of the senses. But it is manifest that, of all the visible states of the moon which are cardinal points also in one and the same lunar revolution, that of which the senses are most competent to judge is the full moon; the middle point between the first dichotomy and the second, the end of the second quarter and the beginning of the third. The precise period of this phenomenon in one and the same lunar revolution is capable of being determined, even by sensible observation, more exactly than that of any other. And when we consider that the Nundinal lunar year of 304 days must have been purposely so framed as to comprehend 38 lunar quarters, that is nine complete lunar revolutions and one half of a tenth; we can scarcely hesitate to infer that if its proper epoch, in the first instance, was not the new moon it must have been the full. And the new moon being excluded by the nature of the test or criterion whereby the epoch was to be defined, (viz. the evidence of the senses,) it could be nothing but the full.

We are clearly therefore of opinion that the proper epoch of such a lunar year, as this Nundinal one, in the first instance must have been the full of the moon. Consequently, could we go back to the point of time when it was first derived from the Primitive solar year, we ought to expect to find both the head of this Nundinal year, and the head of the

Primitive solar year, and the full of the moon, at that time meeting together. But this brings us to the question which we began with proposing to decide; first, the derivation of the Nundinal year of Romulus from a more ancient form of the Nundinal year in general, and secondly, the derivation of that more ancient form of the Nundinal year itself from the Primitive Equable year.

SECTION IV.—*On the mode of deriving the Nundinal Correction of Romulus from the Primitive Equable year.*

It might be pronounced at first sight an hopeless undertaking, to attempt to derive the Nundinal correction of Romulus from an earlier correction of the same kind; in the absence apparently of all information concerning this earlier correction itself. But the undertaking is not in reality so precarious as it appears to be; nor are we destitute of a clue, independently of testimony *ab extra,* to guide and direct our researches. First of all, we have the course and revolution of the Nundinal cycle in the calendar of Romulus; which, if truly derived to that calendar from an earlier cycle of the same kind, by being followed far enough upwards, according to its proper law, must bring us at last to its own origin. Secondly, there is the coincidence just pointed out; viz. that the epoch or origin of this earlier cycle traced far enough back must be found to be falling on the full of the moon: and that is a coincidence which can be put to the test of calculation, without requiring express testimony to the fact itself. Thirdly, we have the course and succession of the Primitive Equable year, from the beginning of things, and from the first day, or Thoth, of that year, down to any time which may be proposed; exhibited in our own Tables. If the first day of this Primitive year, if the full of the moon, and if the origin of the Nundinal cycle, (the same which in due course of time was perpetuated in that of the calendar of Romulus,) can all be proved to have met together in some one year earlier than the date of the calendar of Romulus; there will be every reason to conclude, on the strength of three such coincidences as these, that this year must have been the proper and original one in which that earlier form of the Nundinal correction, from which even the calendar of Romulus was derived, actually took its rise.

And this being the case, instead of fatiguing the patience of the reader with a series of tentative experiments, setting out from the historical epoch of the calendar of Romulus, already determined, B. C. 750, and going back year by year; we will ask his permission to arrive at the same conclusion by an equally certain but much more expeditious process: suggested by the nature of the Nundinal year itself, and by its proper relation to the Primitive. It was the property of that year as referred to the Primitive equable year, to fall back one day on the Thoth of the Primitive year, in six years of its own denomination, and in five of the equable; and as long as each should go on in conjunction with the other, in obedience to its proper law, this rate of recession too must be invariable. It could never be either more or less than one day.

On this principle, if a given form of the Nundinal year did actually set out in a state of conjunction with the Primitive, and did ever after go on in a state of conjunction with it; the distance existing *de facto* at a given time between the head of this Nundinal year and that of the Primitive, under the proper circumstances, would be an infallible criterion of the length of time for which they had been going on in conjunction: i. e. of the age of the Nundinal correction relatively to the primitive year. We say *under the proper circumstances;* for, after what has been explained, it will now be understood that this criterion could apply only when these two forms of the year were taken and compared *at par:* i. e. in the same state of relation to each other in which they set out; or in the nearest to that which would ever after be possible: in other words at the end of the proper period of the restitution of the former in terms of the latter; viz. at the end of six cycles of the Nundinal year, and of five of the Primitive, perpetually.

Let this test then be applied to the Nundinal correction of Romulus, supposed to have been a continuation of some earlier one, from the proper epoch of this earlier correction down to B. C. 750; and to the relation of the calendar of Romulus to the Primitive equable year, as brought down in our Tables from Æra Cyclica 1 to Æra Cyclica 3257, corresponding to A. M. 3254 *exeunte* B. C. 750, and at this point of time also to U. C. 1. The Nundinal epoch at that time was February 4 at midnight; the Equable epoch was February 26 at midnight. The difference between them was 22 cycles of day and night. Multiply this by five, and the product is 110. If the former year then was actually once derived from the latter, under certain circumstances, and each had been going on in conjunction with the other ever after, and each was returning to the relations of origination Æra Cyclica 3257 B. C. 750; it is manifest that they must have been going on in conjunction for 110 equable years: in the course of which the Nundinal year had fallen 22 days back on the equable; but at the beginning of which it had been at *par* with the equable: it had begun on the very same day as the equable year itself.

Now if we go back 110 equable years from Æra Cyclica 3257 B. C. 750; we come to Æra Cyclica 3147 B. C. 860: and in that year of the Æra, as our Tables shew, the primitive Thoth was falling on the Julian March 24 at 18 hours according to the primitive rule, and on March 25 at midnight according to the Julian. Let us therefore apply to this day the several criteria of the absolute or primary epoch of such a correction as this Nundinal one of Romulus, which we have concluded would be found to be meeting upon it, if this Nundinal correction was actually derived from an earlier one of the same kind, and that earlier correction itself was derived from the Primitive Equable year.

The first of these was the course and succession of the Nundinal cycle. If February 4 at midnight was the first day in the Nundinal calendar of Romulus, and March 25 at midnight was the first in this, and if February 4 was Nundinal in the calendar of Romulus; March 25 must have been Nundinal in this calendar. It is easy to prove that it was so. The number of mean solar days and nights in 110 equable years is 40 150. Consequently from Thoth 1 at midnight Æra Cyc. 3147, March 25 at midnight B. C. 860, to Thoth 1 at midnight Æra Cyc. 3257, Feb. 26 at midnight B. C. 750, the sum of mean solar days and nights was 40 150: but from Thoth 1 at midnight Æra Cyc. 3147, March 25 at midnight B. C. 860, to Mesore 14 at midnight Æra Cyc. 3156 Feb. 4

at midnight B. C. 750, it was 22 days less; that is, 40 128. Consequently, between the Nundinal Thoth in the first year of that denomination Æra Cyc. 3147 March 25 at midnight B. C. 860, and the Nundinal Thoth in the 133rd year, Æra Cyc. 3256 Feb. 4 at midnight B. C. 750, the interval in days and nights was 40 128 exactly; that is, 5 016 cycles of the Nundinal day; for 5 016 × 8 = 40 128. If then Feb. 4 B. C. 750 was Nundinal, March 25 B. C. 860 must have been so; and if March 25 B. C. 860 was Nundinal, Feb. 4 B. C. 750 would be so likewise.

The second criterion was the full of the moon. Our general lunar calendar, Period xi. cycle vi. 9, shews the new moon of Nisan April 21 at midnight, B. C. 861; and therefore the new moon of Adar March 11 at midnight B.C. 860[w]. And this is confirmed by the solar eclipse in Pingrè March 11 at 10 15 P. M. for the meridian of Paris, B. C. 860. The calendar full moon, or πανσέληνον of this new moon, would be March 25 at midnight. But in order to leave no room for uncertainty on this point, we have calculated the full moon of March, B. C. 860, expressly; and we find,

		h.	m.	s.	
The mean full moon,	March 26.	3	24	41	mean time Greenwich.
	March 26.	4	14	30	mean time Rome.
		h.	m.	s.	
The true full moon,	March 26.	0	51	56·7	mean time Greenwich.
	March 26.	1	41	45·7	mean time Rome.

And this differs so little from March 25 at midnight, especially as referred to the evidence of the senses, that it may be assumed as the same with it. The second criterion therefore would hold good of this day, as much as the first.

The third criterion was the Thoth of the Primitive equable year. On this point there is no room for uncertainty. The first day of the equable year, brought down perpetually from Æra Cyc. 1 A. M. 1 B. C. 4004, to Æra Cyc. 3147 A. M. 3144 *exeunte* B. C. 860, was March 24 at 18 hours according to the primitive rule, March 25 at midnight according to the Julian.

It follows that all our criteria, the first day of the Orbis

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[w] Introduction to the Tables of the Fasti Catholici, Appendix, P. xlvi. Table xxii. Part xi.

Nundinalis of the earlier cycle of that kind which was carried on and perpetuated in that of the calendar of Romulus, the proper lunar epoch of such a lunar year as the Nundinal, the full of the moon, and the first day of the Primitive year, met together and coincided on this day, March 25 at midnight B. C. 860. The concurrence of three such criteria upon this day is competent, in our opinion, to designate it as the proper epoch even of the Nundinal correction of Romulus; of which we are in search. It is sufficient to trace the Nundinal cycle of Romulus up to this day, in order to connect it at once with the Primitive calendar; the common civil calendar of all mankind. It is sufficient also for our present purpose, (the confirmation of the epoch of the calendar of Romulus,) to have shewn that this original Nundinal cycle, which in B. C. 860 bore date on March 25 at midnight, in B. C. 750 must necessarily have been bearing date on Feb. 4 at midnight; i. e. on the very epoch of the Nundinal correction of Romulus, already determined. We shall have occasion hereafter to prosecute the history of this original Nundinal cycle even beyond this epoch of March 25 B. C. 860; but it is not necessary to trace it further back than B. C. 860, in order to connect it with the Nundinal correction of Romulus, and also with the Primitive year. And both these conclusions will still hold good, whether we can succeed in connecting this older Nundinal cycle with a still more ancient form of the same thing, or not.

It remains then only to exhibit the scheme of this earlier Nundinal year, from B. C. 860 to B. C. 750. But there is no necessity why we should draw it out *in annis expansis*. It will suffice to propose it in cycles of five equable years, and of six Nundinal years; in 22 of both kinds alike: the former containing 110 equable years, the latter 132 Nundinal.

SECTION V.—*Scheme of the Nundinal year older than that of Romulus; through the first Period of* 110 *equable years,* 132 *Nundinal,* B.C. 860 *to* B.C. 750.

Scheme of the Nundinal Year, &c.

Cycle.	B. C.	Midnight.	Æra Cyc.	Midnight.	Recession.
i	860	March 25	3147	Thoth 1	0
ii	855	23	3151	Epagomene 5	1
iii	850	21	3156	4	2
iv	*845	March 18	3161	3	3
v	840	16	3166	2	4
vi	835	14	3171	1	5
vii	830	12	3176	Mesore 30	6
viii	*825	March 9	3181	29	7
ix	820	7	3186	28	8
x	815	5	3191	27	9
xi	810	3	3196	26	10
xii	*805	February 29	3201	25	11
xiii	800	February 26	3206	24	12
xiv	795	24	3211	23	13
xv	790	22	3216	22	14
xvi	*785	20	3221	21	15
xvii	780	February 17	3226	20	16
xviii	775	15	3231	19	17
xix	770	13	3236	18	18
xx	*765	11	3241	17	19
xxi	760	February 8	3246	16	20
xxii	755	6	3251	15	21
i	750	February 4	3256	Mesore 14	22

In each of these cycles of six Nundinal years the number of days and nights is 1824; in each of the cycles of five equable years it is 1825. Consequently the first day of each of the former recedes on the first day of each of the latter at the rate of one day in six years of the former kind, and of five of the latter, perpetually.

The proper epoch of these cycles of five years is the same day in the equable year perpetually; and in the above scheme it is the first of Thoth, the proper epoch of the equable year itself. The proper epoch of these cycles of six years, which revolve round the other continually, though fixed in itself and always the same with reference to the Nundinal cycle, is variable in terms of the equable year: and at the beginning of every fresh cycle of six years of its own denomination it is the next lower term in the equable year relatively to that on which it set out at the beginning of the preceding cycle. In the above scheme, it is the next lower term than the first of Thoth perpetually. Consequently, at the end of the first cycle of six years, it is the fifth epagomene; at the end of the second, it is the fourth; and so on: receding one day perpetually every six years of its own denomination, and every five of the equable, in the retrograde order of the equable notation.

The number of days and nights in the entire period of 22 cycles of six Nundinal years, (132 Nundinal years,) being 40 128; if the Nundinal cycle itself was a cycle of eight days perpetually, in these 40 128 days there would be 5 016 Nundinal cycles exactly. On whatsoever feria therefore of the Nundinal cycle the head of the Nundinal year might have set out at the beginning of one of these periods, it must return to it again at the beginning of the next; i. e. the first day of every Nundinal Period of 132 years must be the same feria of the Nundinal cycle. The same thing holds good of the first day of the Nundinal period of six years. Both in fact are only the necessary consequence of the length of the Nundinal year, 304 days, and of the length of the Nundinal cycle, 8 days; the latter of which being contained in one Nundinal year a certain number of times exactly, it must be contained in any number of Nundinal years a certain number of times exactly also. The rule in fact is invariable; that the first day of any number of Nundinal years, while the Orbis Nundinalis continues the same, must be the same feria of the Nundinal cycle. But it is not necessary it should be the feria prima: though *de facto* both in the Nundinal correction of Romulus, and in every form of the Nundinal calendar older than that of Romulus, it appears to have been the feria prima.

SECTION VI.—*On the probable details of the Nundinal Calendar, older than that of Romulus, in general.*

With regard to the details of a calendar like the Nundinal, i. e. the distinction, succession, and length of its component parts, which would properly be its months; in the first place, to judge from the analogy of the Primitive solar calendar, it might have been distributed into ten months, each of thirty days, as that was into twelve; and it might have had four epagomenæ as that had five. But though such an arrangement of its constituent parts might have suited the character of a solar year, it would have been incongruous to that of a lunar.

Secondly, the Nundinal year being regarded as a lunar year of a particular kind, formed on a cycle of quarter or of half lunations; it might be considered distributable from the first into nineteen months of sixteen days each: and such a distribution would have been in unison with the lunar standard assumed by it, four cycles of eight days each, 32 days in all. To such a supposed distribution of a lunar year like this there could have been no objection *a priori;* but there would have been a great objection *a posteriori*, i. e. from the matter of fact: viz. that on this principle the Nundinal calendar must have consisted of nineteen months, whereas, in point of fact, it is uniformly represented to have consisted only of ten. And though the extant testimonies to this effect for the most part are applicable to the state of the case only in the Nundinal calendar of Romulus; there is no reason why the constitution of that calendar should not be considered, in that respect at least, a test and criterion of that of every other of the same kind. There is no reason to suppose that in consisting of ten months only the Nundinal correction of Romulus was singular. If even *this* was derived from an earlier calendar of the same kind, which it took up and continued; must it not be necessarily inferred from that fact that the earlier calendar perpetuated in that of Romulus consisted of ten months too? But the truth is, testimony is actually extant to other Nundinal calendars besides that of Romulus; from which it appears that they also consisted of ten months. There was no eleventh month in any calendar of this denomination, any more than in that of Romulus. A decimestral calendar and a nundinal calendar in all allusions of this kind appear to have been convertible terms.

Thirdly, the Nundinal year being regarded as a lunar year, formed on a particular assumption of the mean lunar standard, and destined to follow a peculiar rule with respect to the lunar phases; it might have been appointed from the first, in unison with its own principles, to consist of nine integral months of its own standard, and of half a tenth. *This* standard, as we have seen, was four integral cycles of eight days; *that* rule of the phasis was never to begin and to end with the same; but, with whatsoever state of the phasis it began, to end with the opposite one.

We are entirely of opinion therefore that, according to the first views and constitutions of the author or authors of the Nundinal correction of the primitive year, it was designed and appointed to consist of nine months of 32 days each, and of a tenth month of 16 days; of 19 half lunations of the standard assumed, of 38 quarter lunations, of 304 days in all. The theory of such a correction, as carried out and realised in application consistently with itself, leads directly to this conclusion. No other arrangement and distribution of the details could represent in effect and practice the abstract conception of such an idea as that of this correction. Besides which testimony is actually in existence, which we hope to produce hereafter, that the recognized standard of the civil Nundinal month was this very one of the mean standard of the Nundinal lunation; viz. 32 days.

It would be a consequence of this arrangement of the details of the calendar, and of the relation of the parts to the whole and to each other, that the first day of every month would fall on the same Nundinal feria: and if the first day of the year was Nundinal, (i. e. fell on the feria prima of the Nundinal cycle,) the first day of every month would do so too. On the same principle, the ninth day of every month would be Nundinal too. We shall see proof we trust hereafter of each of these things; both that the first day of the year, and the first day of the month, and the ninth day of the year, and the ninth day of the month, in all these Nundinal calendars of antiquity were Nundinal alike: which must be a strong confirmation of our conclusion that, in the original form and constitution of the Nundinal correction, every month was of the same length, but the last; and every month, including even the last, was a perfect multiple of the Nundinal cycle.

Supposing then that the earlier Nundinal calendar, up to which we have traced that of Romulus, whether absolutely the first of its kind or not, was still true to the principles of the Nundinal Correction in general; we should not hesitate to draw out the scheme of that calendar through the first year of Period i Cycle 1 as follows:

Nundinal Calendar, March 25 B. C. 860.

Period i. Cycle i. Year 1.

Month.	Days.	Midnight.	B.C.	Month.	Days.	Midnight.	B.C.
i	32	March 25	860	vi	32	Sept. 1	860
ii	32	April 26	..	vii	32	Oct. 3	..
iii	32	May 28	..	viii	32	Nov. 4	..
iv	32	June 29	..	ix	32	Dec. 6	..
v	32	July 31	..	x	16	Jan. 7	859

The epoch of such a calendar in the second year of the first cycle would consequently be January 23 at midnight B. C. 859; 61 days exactly behind that of the first year, March 25 at midnight B. C. 860. And in succeeding years it must go on descending in a similar proportion, 61 years in every common year of the Julian cycle of leap year, 62 days in every leap year: which in this first cycle of six Nundinal years would be found to come in, in the fourth year, B. C. 858—857; the epoch of which would be September 23 B. C. 858, and that of the next year, July 23 B. C. 857.

SECTION VII.—*On the change in the details of the Nundinal Calendar made by Romulus.*

Testimony appears to be uniform that Romulus was in some sense or other the author of his own calendar: but, if even *his* calendar was actually derived from a preexisting one of the same kind, in what sense would that be true? Not certainly in the sense of his having been the original contriver of a calendar of that kind. It must therefore be in the sense, and to the effect, that Romulus was the author of certain changes and modifications of this older calendar, sufficient to make it, as so changed and modified, something of his own.

Now it is clear that he could have made no change in the Nundinal cycle; or in the number of days, or in the number of months, contained in the Nundinal year. These were absolutely the same in his calendar as in any other of the same kind. It is clear then that he could have made no change in any essential property of the Nundinal correction; in any of those peculiarities, an alteration in which would have made it really different from what it was before, whether nominally the same or not. If then he made any change in it at all, it must have been in something which left it as a whole and in all essential respects the same as before. Now an alteration of the lengths and proportions of its months, a fresh adjustment and distribution of the details of the calendar, would be something of that kind. It would affect nothing essential, nothing indispensable to the very existence of such a calendar as the Nundinal; and yet it would be a change, it would be something new, and something peculiar to the Nundinal correction of Romulus: something consequently which would serve to discriminate it from every thing of the same kind older than itself, and make it pass both with his contemporaries and with posterity for his own.

Now if it was the rule of the Nundinal calendar previously that all its months should be of equal length, but the last; it is manifest that in such a calendar, even considered as lunar, there could have been no distinction of *menses pleni* and *menses cavi*. Every month must have been *plenus* alike, except the last; and even that could not have been properly *cavus*. Yet the ancients have left it on record that there was a distinction of *menses pleni* and *menses cavi* in the calendar of Romulus; and we are of opinion that they had good foundation for those statements. The analogy of the calendar of Numa is very important to this question. There was a distinction of *menses pleni* and *menses cavi* in that calendar; such too that its *menses pleni* were months of 31 days, and its *menses cavi* were months of 29 days. And this alternation in his calendar properly began with the month of March; the first of the months common to *his* calendar and to that of Romulus also. If we come to treat of this part of the correction of Numa, we shall probably see reason to conclude that he did not pitch on this peculiar rule of alternation *a priori* and of himself; that he found it in the calendar of Romulus: and that as already in possession of *his* calendar he retained it for the use of his own.

We conclude then that the rule *de facto* of the calendar of Numa in this respect ascertains that of the calendar of Romulus. Consequently that there was an alternation of *menses pleni* and *menses cavi* even in the calendar of Romulus; such too that the former were months of 31 days and the latter of 29. If then it was characteristic of the Nundinal calendar in common, until then, to contain only months of the proper nundinal standard; a change must have been first introduced into it by Romulus, which would necessarily affect its external appearance, and so far oppose his own correction to every other of the same kind. Whether he made this change under an idea that the true measure of the δίμηνον or double lunar month might be correctly represented by two months in sequence, one of 31 days the other of 29, we cannot undertake to say. The rule of his calendar in that respect will not convict Romulus of an ignorance of the truth, no more than the similar rule of Numa's will convict him; for it will appear we trust hereafter that Numa was perfectly well aware of the true standard of the natural civil δίμηνον, in integral days, (viz. 59 days,) even while for the use of his calendar he was adopting that of 60 days. Neither can we undertake to say whether the first idea of this distinction of *menses pleni* and *menses cavi* was conceived by Romulus for himself, or was borrowed from some other quarter. It was a distinction however which would seem necessarily to enter into the constitution of a lunar calendar; and the Nundinal calendar itself was lunar. It was a distinction too which had long been introduced into the civil calendar, in the sense of lunar, in the form of the octaëteric[x]; and if Numa was well aware of the existence of this cycle, and of its nature and constitution, there is no reason why Romulus might not have been so too.

We consider it therefore the most probable account of the details of the calendar of Romulus that the first six months at least were *pleni* and *cavi* alternately; the odd months *pleni* beginning with Martius, and 31 days long; the even months *cavi* beginning with Aprilis, and 29 days long. But as to the last four months, unless we suppose that four days were purposely reserved to stand by themselves at the end of the year, even this rule of alternation would have to be modified in the case of these four; so that two of them must have been months of 32 days and two of them months of 30. It ought not to excite surprise to find the rule of alternation in the calendar of Romulus thus modified according to circumstances. The same anomaly, if it must be so called, holds good of that of Numa: and yet a reason is discoverable for it there, which would be equally competent to account for it in the calendar of Romulus.

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[x] Fasti Catholici, i 103. Diss. iii. ch. iii. sect. iv.: 564. Diss. vii. ch. iii. sect. v.

Type of the first Nundinal year of Romulus.

Epoch Martius 1, U. C. 1. Feb. 4, B. C. 750.

Month.	Days.		Midnight.	
i	31	Martius	February 4	B. C. 750
ii	29	Aprilis	March 7	..
iii	31	Maius	April 5	..
iv	29	Junius	May 6	..
v	31	Quinctilis	June 4	..
vi	29	Sextilis	July 5	..
vii	32	September	August 3	..
viii	30	October	September 4	..
ix	32	November	October 4	..
x	30	December	November 5	..
i	31	Martius	December 5	B. C. 750

It is observable that in such a scheme as this the 80th day of the year must necessarily fall on the 20th of the third month; that is, in the style of the calendar of Numa, on the xi Kal. Maias: and the 127th day on the 7th of the 5th month; i. e. on the Nones of Quinctilis. And in this scheme, when the first day fell on Feb. 4 B. C. 750 the 80th fell on April 24, the day of the Foundation: and 35 years after, B. C. 715, when the first day was falling on January 20, the 127th would fall on May 26, the day of the eclipse at the death of Romulus. These two coincidences are competent to authenticate this type of the calendar of Romulus for the first six months: and possibly we shall see another, when we come to treat of the calendar of Numa, which will authenticate it for the last four also.

In this type too the first day of the year, the first of Martius, must necessarily be Nundinal perpetually, if it was so B. C. 750. According to the old rule of the length of the months too the first day of every month must have been nundinal also; but with the new rule of the calendar of Romulus that could no longer be the case: and what days of the month in this calendar, and as subject to this rule, would be nundinal perpetually, will be seen hereafter.

SECTION VIII.—*On the mode of dividing or distinguishing the days of the months in the Calendar of Romulus; and on the name of the month Aprilis.*

With regard to the distinction of days in the calendar of Romulus, (the nomenclature or style of his calendar properly so called,) it is difficult in the absence of testimony *ab extra* to say what was the case. We can propose only an opinion concerning it. First, as to those divisions of the same or a similar complex of days which constituted the Roman month, and with which the classical idiom of antiquity has made us familiar, under the name of kalends, nones, and ides respectively; we are entirely of opinion that they had no existence before the time of Numa, and that they were devised by Numa himself for the use of his own calendar: though we admit that, according to Macrobius[y], some of the learned among the Romans (possibly even all, in later times) must have thought that, with respect to such distinctions as these, there was no difference between the style of the calendar of Romulus and that of the calendar of Numa. But when the true meaning of these distinctions in the calendar of Numa comes to be understood, it will be seen that they could not possibly have been applicable to any calendar but his own.

Secondly, in the absence as yet of any such artificial rule of dividing and distinguishing the parts of the month, under their proper names respectively, as this of the calendar of Numa, it is most reasonable to suppose that the calendar of Romulus followed no conventional or positive rule of that kind; but, like the modern Julian calendar, reckoned the days of the month in their natural order from the beginning to the end. If any thing like testimony to its actual rule is still in existence, or if there are any facts on record from which it may be possible even now to divine it; they are such as to lead to this conclusion. If such was the case, that too must have been one of the changes introduced by him into the preexisting Nundinal calendar; and calculated to make his own correction of that kind singular. For though this point of the actual division of the nundinal month, and of the actual designation of its component parts, is confessedly one of the most obscure; we are not altogether without data by means of which we may form an idea of it: and we may possibly see hereafter that, though it was neither the same with that of the calendar of Numa, nor with that which we are supposing of the calendar of Romulus, it was perhaps the most agreeable to the nature and constitution of the nundinal month, and of the nundinal calendar, which could have been adopted at first.

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[y] Saturnalia, i. 12. 15.

The names of the months in the calendar of Romulus, from the fifth to the tenth, appear to have been simply numerical; names of order and succession merely. Consequently, they present nothing, which seems to require explanation *, but

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* Something however deserves to be said of the names of the two months Quintilis and Sextilis in particular.

First, of the two modes of writing the former, Quintilis and Quinctilis, the latter is most correct. Festus, xv. 412. 7: Quincentum et producta prima syllaba et per C litteram (quinccentum) usurpant antiqui: quod postea levius visum est ita ut nunc dicimus (quincentum) pronunciari. The oldest form of this name then was Quinctilis; just as the oldest form of quintus was quinctus: an archaïsm to which Cicero shews himself attentive, De Senectute, 16: Siquidem aranti L. Quinctio Cincinnato, &c. This is consequently that form of the name of this month to which we propose to adhere throughout; Quinctilis not Quintilis.

We are entirely of opinion however that this peculiarity in the form of the name is due to the fact that in the shape of Quinctilis it is a contraction of Quinquetilis; which became in pronunciation first Quinqtilis, and then Quinctilis. Quinquetilis it is evident would be absolutely analogous to Sextilis. And if both were compounded of the cardinal number, and of some other term represented by tilis, the constitution of both, *mutatis mutandis*, would be entirely analogous to that of the names of the months which follow them: for these too in each instance are compounded of the cardinal number, and of something else in the form of Ber. We have sought in vain for any satisfactory explanation of the etymon of these two terms, Quinctilis and Sextilis. We altogether reject the idea of deriving one from the ordinal *quintus*, and the other from the

the affix of *Ber*, attached to the four last; and on that point we hope to find a better opportunity of declaring our opinion hereafter. We have nothing to retract, with respect to the derivation of Maius, the third month, from Majores, or to

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ordinal *sextus;* for we know of no analogy according to which Quintilis could have been formed from quintus, or Sextilis from sextus: any more than Quartilis from quartus.

It is well known that the penult is naturally long in both these terms. Quintilis or Quinctilis indeed is not easy to be found in any classical poet; but Sextilis occurs twice in Horace: and the quantity of Sextilis will vouch for that of Quinctilis.

> Quinque dies tibi pollicitus me rure futurum
> Sextilem totum desideror. Epp. i. vii. 1.
>
> Per brumam Tiberis, Sextili mense caminus. Epp. i. xi. 19.

In this respect they follow the analogy of *subtilis*, the middle syllable of which is long too. And we cannot help suspecting that, if the truth were known, the same element enters into each of them which enters into *subtilis* also; only in the sense of reiteration or repetition—a retexture as it were of the same thing: for subtilis is compounded of *sub* and *tela;* a woof or web.

We have very little doubt that the original names of these two months were Quinqueber and Sexber, like those that follow them, and take them up; and we have as little that these names of Quinctilis and Sextilis, substituted *de facto* for those of Quinqueber and Sexber, were notwithstanding more or less equivalent to them, and meant much the same thing too.

The rule of alternation in the lengths of the months in the calendar of Romulus, as we have seen, was different in the case of the last four from what it was in the first six. The first six were consequently discriminated by a sensible mark of distinction from the last four. Of these themselves Romulus changed the names of the first four entirely, from names of number to proper names: and though he did not give proper names to the last two of these six also; yet he seems to have thought it necessary to discriminate them, even as still designated by names of number and order merely, from the four which followed them, and had names of the same kind too. He did this by substituting Quinquetilis for Quinqueber, and Sextilis for Sexber; the former notwithstanding denoting something much the same as Quinqueber, and the latter as Sexber; though what that was in the case of Ber, we shall have occasion to inquire at a future stage of our work *.

* There might be in the ancient Latin language a term analogous to our own vernacular one of *Deal;* the meaning of which is *Part* or *Turn* as well as *Quantity:* and this in Latin would be *Dela;* and from that even *Tela* itself might be derived, though the Lexicons derive it from *Texela*.

that of Junius, the fourth, from Juniores. We see no reason too why we should dissent from the commonly received opinion that the name of Martius was purposely given to the first month, in honour of Mars; though whether of the god Mars, or of the planet Mars, may be a doubtful point: and we are ourselves more inclined to believe that the month was purposely so called after the planet Mars.

The name of Aprilis alone remains; concerning which we have already declared our opinion that its original form was Aperilis, and its original meaning was that of the opening month, in the sense of the spring or vernal month κατ' ἐξοχήν. Neither is there any reason to question whether this name was given it by Romulus himself. The name therefore of itself would imply that, at the time of the correction of Romulus, the proper beginning of spring and consequently the vernal equinox must have been falling in this month. And it is easy to shew that such was the case. The mean vernal equinox, B. C. 750, according to our General Tables, properly corrected[a], for the meridian of Jerusalem, fell out March 31. 6h. 45m. 43·2s.: for that of Rome, March 31. 5h. 14m. 43·2s.: the true for the latter meridian bore date March 29, about 12h. 52m. from midnight. The limits of Aprilis in the scheme exhibited supra[b] are March 7 and April 5. Consequently the mean vernal equinox, B. C. 750, must have fallen on the 25th of that month, the true on the 23d. We see then with how much propriety this first Aprilis in the calendar of Romulus might receive the name of the *opening* month, in the sense of the first of the months of confirmed spring. And though in such a calendar as the Nundinal it could not retain this position in the natural year perpetually; it would recover it every five years. What we are bound to consider chiefly in such a case as this is the *first* imposition of the name, and the reasons on which it was founded; and these are explained by the actual relation of the month in question, B. C. 750, for the climate of Italy, to the vernal equinox and to the natural year.

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[a] Introduction to the Tables, Preface, Page i.

[b] Page 157.

SECTION IX.—*On the origin of the Lustral Cycle of Roman Antiquity.*

The history of the Nundinal correction of the Primitive calendar, as far as we have yet investigated it, is sufficiently complete; and, though it will be necessary for us to resume the prosecution of this subject at a future opportunity, those further inquiries may now be postponed. We know enough of the first Roman calendar, (which was that of Romulus,) to prepare the way for the consideration of the second, which was that of Numa. We shall therefore conclude this subject for the present, by briefly adverting to one more point, which is closely connected with it; the origin of the Lustral Cycle of Roman antiquity.

The Lustral cycle was a cycle of five years. It is sometimes indeed spoken of, as if it was one of four years. But its true length was five years, and neither more nor less than five. It made no difference to the length of the cycle, what kind of years these were. The Lustrum was five of such years as were current or kept by the calendar at the time. After the Julian correction, these were five solar years; before they were either nominally or truly five lunar years.

The origin of this cycle of five years, in the sense of the *lustrum*, is connected by the Romans themselves with the institution of the Census; and both are traced up to the reign of their sixth king, Servius Tullius: nor is there any reason to doubt, as we hope to shew more at large hereafter, that Roman tradition had good grounds for this connection; and that this peculiar period, in the sense of the lustrum and in conjunction with the census, did take its rise at Rome in a certain year of this ancient king.

But the institution of the census, in connection with this peculiar period of five years, is no explanation of the length of the period, nor why it was limited to five years. There is no proof in existence that this period was not known of before the institution of the census. On the contrary, the connection of the census itself with this period from the first is a strong ground of presumption that the period was really older than the institution of the census; though not before a certain time connected with any such ceremony.

The above account of the Nundinal correction of the Primitive Equable year explains this, and proves that it must actually have been the case. The first institution of the Nundinal calendar must have been the first institution of this peculiar period also. The Nundinal correction of the Primitive calendar was necessarily connected from the first with a period of this kind; the period of its own restitution in terms of the primitive equable year.

It may therefore most reasonably be supposed that the origin of this cycle went back in reality to that of the Nundinal calendar: that wheresoever the Nundinal correction was in use there from the necessity of the case this cycle must have been in use also. And indeed there is testimony extant to that effect; which we hope to produce hereafter. We shall now however understand that the proper measure of this cycle at first must have been five equable years, five primitive civil years; the proper period of the restitution of the Nundinal year to its original relation to the Primitive. But to this subject also we must return hereafter.

DISSERTATION III.

On the Calendar of Numa Pompilius.

CHAPTER I.

SECTION I.—*On the personal existence of Numa Pompilius.*

IT does not belong to a work like the present to take any formal notice of the doubts which have been cast on the personal existence either of Romulus, the first author of the Roman calendar, or of Numa Pompilius the next to him; though we are aware of the existence of such doubts, and of the extent to which they are entertained, especially by the writers of a certain school. On the contrary we should owe an apology to our readers for the practical absurdity of which we should appear to be guilty, did we stop to consider a question of this kind, preliminary to any part of our proper business. For to assume as we do that the calendar of Romulus or the calendar of Numa had an actual existence, and yet to doubt whether Romulus himself or Numa himself had any such existence, would be to contradict our own assumption. Whatsoever degree of prejudice therefore against our undertaking the declaration may excite in certain minds, we do not hesitate to declare that we begin with assuming the personal existence of both these characters, preliminary to any account of the correction of either. But we hope we shall not be obliged to end with merely assuming it. If a man's actions were real, the man himself must have been a reality too. If the correction of Numa was real, and long survived him, and is attested by its effects and consequences even at the present day; what but the most absurd and irrational prejudice can doubt whether Numa himself was a real person or not?

Thus much at least must be the necessary consequence of the kind of argument which we propose to exemplify in the present case; viz. that, whosoever was the author of the correction of the calendar attributed to Numa Pompilius, if that correction was matter of fact and in its proper order of time, he must have been as old as the correction itself. The objections to the personal existence of Numa, which have so much weight in the opinion of so many of the learned of the present day, are founded at bottom on his supposed antiquity, more than on any thing else. Our proposed argument goes to the root of all these objections; and by demonstrating the real antiquity of the correction attributed to Numa demonstrates also beyond all possible contradiction the antiquity of its author.

It does not always appear whether these doubts affect the supposed name, or the supposed existence, of such a person among the Romans as Numa Pompilius. If they affected only his name, and implied no more than an uncertainty whether the person to whom such and such actions were attributed in Roman history was truly so called or not, the question would be about words, and not about things; and it would not be worth any one's while to treat it seriously. It is of no importance under whose name the actions attributed to Numa are allowed to pass; if the agent was only as real as his actions, and actually lived at the time implied by the actions themselves. But if these objections and doubts go much further, (as unquestionably they do,) and are intended to discredit the actual existence of any such person, and under any such name, as Numa Pompilius, then, though (as we have already observed) we consider it almost necessary to apologise to our readers for adverting to this question at all, yet among the reasons for rejecting these doubts and for acquiescing in the contrary opinion, independently of the testimony of his calendar, we would briefly insist on the following.

i. The unanimous belief of Roman antiquity. There is no writer among the Romans, whether later or earlier in point of time, whether treating professedly of such subjects or not, who does not whensoever there is occasion bear his individual testimony to the supposed reality of Numa.

There is none who appears to have doubted himself, or to have been aware of any such doubt entertained by others, either of the existence of such a person in his proper order of time, or of his name and designation. It is therefore subversive of the credit which is due to testimony generally, and of all confidence in the testimony of history in particular; if the coincidence of Roman tradition upon this point, unanimous as it is, and without exception from first to last, is to pass with posterity, and at the present day, for nothing.

ii. The order and succession of the kings of Rome; in which the place occupied by the reign of Numa cannot be dispensed with. It makes a difference of 40 years and upwards to the length of the interval from the Foundation to the Regifuge and to the first consulate; according as this reign is taken into account or not. The date of the Foundation is fixed; and the date of the first consulate is fixed: each too independently of the other. The dates of the intermediate reigns are consequently fixed also; or can vary only within certain limits. To dispense with an entire reign of 40 years and upwards, in its proper place in the order of the series, under such circumstances would be absolutely impossible.

iii. The laws and constitutions of Numa: which are repeatedly mentioned in subsequent times. The fact of this recognition will not be disputed. The general belief on this point, that Numa was actually the first legislator of the Romans, is not more poetically than historically expressed by Virgil:

Nosco crines incanaque menta
Regis Romani, primus qui legibus urbem
Fundabit, Curibus parvis et paupere regno
Missus in imperium magnum[b].

If this was actually the case, it is no wonder that laws and constitutions, the origin of which was ascribed to Numa, should still have been preserved among the Romans, and should still be repeatedly recognised both generally and particularly, (according to the occasion,) down to the latest times. But how shall we account for these acts and instances of legislation, without the legislator? Could the

[b] Æneid, vi. 810.

code of Numa be a reality and the person and character of Numa a nonentity? The terms of his laws and constitutions are frequently quoted: and the very style of the diction in such cases is sufficient to prove that it carried with it internal evidence of its own antiquity; and could have belonged to no period in the history of the Roman language but one coæval with the Foundation itself*.

iv. The genealogies of many Roman families even in the classical period of Roman history; which were traced up to Numa and his contemporaries. There is no antecedent improbability that, if such genealogies were founded in a real connection of this kind, they would be in existence even in the time of Augustus. The family records and memorials of the Romans were preserved with the greatest care. It was matter of personal interest to all ranks and conditions of society, so to keep and preserve them perpetually; and especially to the oldest and most illustrious families and their representatives: nor could they possibly be indifferent to it. The number of descents in a given instance between Numa and Augustus, according to the average interval of generations, could not have exceeded 21 or 22; and in repeated instances it might have been much less. And what was there to prevent twenty or twenty-one steps of descent in a particular genealogy from being well ascertained? sufficiently so at least, to leave no doubt of its actual beginning, and at the proper distance of time, from its existing representatives at a given period lower down. The fact at least is certain; that individual Roman families, many centuries later than the time of Numa, still professed to derive their descent from him, or from his contemporaries. The very circumstance of such a profession is a proof that both he and his contemporaries must have been supposed to be real characters; and what is more, unless such professions were absolutely without foundation, and such genealogies were absolutely fictitious, they must be demonstrative of their actual existence, and at the time too which history and tradition assigned them. It is more perhaps than we could venture to assume that every profession of this kind must have been absolutely true; and that every such genealogy must have been free from interpolations: but it would probably err as much in the contrary extreme, to maintain that all such pretensions were without foundation, and that all such genealogical records were fabricated and spurious. In many parts of the ancient world genealogies have supplied the want of written history. The chronologers of old probably made more use of genealogies than of any other kind of chronological data, accessible to them: nor can it be denied that when judiciously applied and subjected to proper restrictions and limitations they are as valuable and trustworthy as any*.

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* Cf. Festus, i. 20. 1. Aliuta: xiii. 300. 11. Occisum: 305. 19. Opima spolia: xiv. 324. 15. Paria: 333. 5. Pellices: xvi. 421. 9. Ratitum: 447. 8. Reus: xviii. 506. 13. Termino: xiv. 352. 7. Plorare: xii. 261. 11. Nancitor. Cicero, De Legibus, ii. 8–10: iii. 3: 4. Pliny, H. N. xiv. 14. 80: xxxii. 10. 687. A. Gellius, iv. 3. Servius, ad Eclog. iv. 43: Æn. vi. 860: Georg. iii. 387. Dionysius, ii. 25: 27. Livy, vi. 1. Plutarch, Numa, xvii.

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* The Pisos, to whom Horace addressed his Epistle De Arte Poetica, are styled by him Pompilius Sanguis[1]; i.e. lineal descendants of Numa. The emperor Marcus Aurelius was supposed to be lineally descended from him too. Cujus familia in originem recurrens a Numa probatur sanguinem trahere, ut Marius Maximus docet[2]. The accounts of Numa's family differ. But it seems to be agreed that he did leave issue behind him, either male or female[3].

Herodian describes Glabrio (Manius Acilius Glabrio, consul A. D. 186) as a lineal descendant of Æneas[4]. The Auctor De Viris illustribus speaks of Cicero as a lineal descendant of Titus Tatius[5]; Plutarch[6], and Jerome in Chronico[7] as if of Atius Tullus king of the Volsci: and he himself speaks of Servius Tullius as his own Gentilis[8]. Marcus Junius, the father of the celebrated Brutus, according to Dionysius[9] was lineally descended from the Trojans who came into Italy with Æneas: and B. C. 493 exeunte[10], he describes Spurius Nautius, as one Ἀπὸ τῶν σὺν Αἰνείᾳ στειλάντων τὴν ἀποικίαν. He enumerates the names of families transplanted to Rome on the destruction of Alba Longa[11]; most of which were still in existence in his own time. Plutarch asserts the same thing of many of the

[1] ver. 292. cf. 6.

[2] Historiæ Aug. SS. Capitolinus, Vita, 1. Cf. Eutropius, viii. 5. Suetonius, Julius Cæs. vi. § 1. Augustus, ii. § 1. Otho, i. § 1. Vitellius, i. § 3. Tacitus, Ann. iv. 9: xi. 24: xii. 25.

[3] Cf. Dionysius, ii. 60. 76. Plutarch, Numa, iii. v. vi. viii. ix. xxi. Livy, i. 20. 32. Cf. Dionys. iii. 35, 36. Cicero, De Republica, ii. 65.

[4] ii. 10.

[5] Vita.

[6] Vita, 1.

[7] Thes. Temporum, ad Olymp. 168. 3.

[8] Tusculanæ, i. 16: cf. Brutus, 16.

[9] iv. 68.

[10] vi. 69.

[11] iii. 29. ad fin.

v. The number and variety of institutions, observances, and customs, some public some domestic and private, some

families of the Romans in *his* time, as lineally descended from the contemporaries of Numa[12].

Æmiliam gentem appellatam dicunt a Mamerco Pythagoræ philosophi filio, cui propter unicam humanitatem cognomen fuerit Æmilos. alii quod ab Ascanio descendat, qui duos habuit filios, Iulum et Æmilon[13]. We should doubtless have known more on these subjects, and should have been better able to form a correct opinion about them, if Varro's work, De Familiis Trojanis[14], had descended to posterity; or Atticus' on these subjects in general, and on the genealogy of particular families, (the Junii, Marcelli, Fabii, Æmilii,) both referred to by Cornelius Nepos[15].

It cannot indeed be denied that doubts had been cast by some of the Romans themselves, before the time of Plutarch, on the authenticity or genuineness of such genealogical records as professed to go back beyond even the capture of the city by the Gauls; much more to the time of Numa: *Καίπερ ἐξ ἀρχῆς εἰς τοῦτον κατάγεσθαι τῶν στεμμάτων ἀκριβῶς δοκούντων. ἀλλὰ Κλώδιός τις ἐν Ἐλέγχῳ χρόνων (οὕτω γάρ πως ἐπιγέγραπται τὸ βιβλίον) ἰσχυρίζεται τὰς μὲν ἀρχαίας ἐκείνας ἀναγραφὰς ἐν τοῖς Κελτικοῖς πάθεσι τῆς πόλεως ἠφανίσθαι, τὰς δὲ νῦν φαινομένας οὐκ ἀληθῶς συγκεῖσθαι δι᾽ ἀνδρῶν χαριζομένων τισὶν εἰς τὰ πρῶτα γένη καὶ τοὺς ἐπιφανεστάτους οἴκους ἐξ οὐ προσηκόντων εἰσβιαζομένοις*[16].

In order to judge of the probable value of this opinion, it would be very necessary to know who this Clodius was, and when he lived and wrote this work of his entitled Examen temporum, or *Ἔλεγχος χρόνων*; and what degree of information he was likely to possess, to qualify him to pronounce dogmatically on such a point as this, affecting the personal history of so many of the best and noblest families at Rome. On all these particulars we are absolutely without information; for it is agreed that this Clodius in connection with such a work is mentioned no where else. It is gratuitous to assume that he was Claudius Quadrigarius, the Roman historian, (himself too certainly later than the viith consulate of Marius[17], B.C. 86,) to whom no such work is any where attributed; or even a Roman historian at all: though Cicero mentions a Clodius[18] among other historians known to him. There would be just as much reason to assume that he was the Clodius, designated by Servius[19] as Scriba Commentariorum.

The *prima facie* inference from this passage of Plutarch would simply of a religious others of a civil description, ascribed in their origin to Numa, yet still in existence, and still kept up at

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[12] Numa, xxi.

[13] Festus, i. 14. 3. Cf. i. 43. 12. Aureliani: i. 60. 4. Cæculus: i. 63. 10. Calpurnii: ii. 83. 8. Clœlia: vi. 140. 4. Fabiani et Quintiliani (cf. xv. 414. 11. Quintiliani: xii. 278. 14. Niger, Lapis. Auctor, De Origine Urbis Romæ): xi. 218. 16, 17. Mamilia: xii. 271. 1. Nautiorum.

[14] Servius, ad Æneid. v. 704: 117: 121: 568. Cf. ad viii. 179: 269: x. 105.

[15] Vita, xviii. 3. 4.

[16] Numa, i.

[17] A. Gellius, x. 1.

[18] De Legibus, i. 2. A Sextus Clodius too is quoted by Arnobius, v. 168: and as one who had written in Greek: also by Lactantius, i. 22.

[19] Ad Æn. i. 52: ii. 229.

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be that, according to Clodius, and as the result of *his* inquiries, there were false genealogies in existence, which had been purposely contrived in order to connect certain persons with families to which they did not belong. But what would that prove of the genealogies of those families themselves? Must *their* genealogies be necessarily spurious and false, because there were others, which professed to be theirs, and yet were fictitious? Were there no persons, in the time of this Clodius, who really belonged to such families; and had good proofs and vouchers to shew that they did so? What too must we suppose to be meant by the ἀρχαῖαι ἀναγραφαὶ here alluded to? older than the capture of the city, yet of the same kind as others, younger than that event. Were they private or public documents of their kind? were they the Tabulæ Censoriæ, or family records? If they were the Tabulæ Censoriæ, it would be false to assert that every thing of that kind, older than the capture, which was even in the hands of private individuals, perished in consequence of that event. It is well known that Dionysius of Halicarnassus has quoted the last Tables of that kind before the capture; those of the census which immediately preceded the capture: and has made a very important use of them. The records of that census at least must have survived the capture; and if those could do so, why might not others also?

It is clear that nothing of this kind, which was kept in the Capitol, could have been involved in the catastrophe of the city. And as to any thing of the same description which might be in the hands of private individuals, and more particularly such things as their family records; there was three days' interval after the battle of Allia, before the Gauls advanced upon the city. The Romans had time to save their persons; and every thing which was moveable, and worth removing. If they left any thing to perish, they must have left it on purpose: and we may be sure that it would not be their genealogies, their family records, the memorials of their ancestors—in particular. They removed their household gods, and their family *sacra*, as well as their wives and children, to places of safety; and why should they not remove their family records, and even the images of their ancestors? which next to their gods and their families were the nearest and dearest to them. And what genealogy, at the time of the capture, (only 360 years after the Foundation,) could have contained more than eleven or twelve names in the direct line of descent? and what difficulty could there have been in restoring these after the capture, in numberless instances, even from memory?

In short, it has never appeared to us that the event of the capture of the city by the Gauls could reasonably be supposed to have produced those effects, which it has suited the purpose of sceptical writers to attribute to it. An unfortunate observation of Livy's at the outset of his sixth book[20], where he is entering on the particulars of his subject later

[20] vi. 1. Cf. Plutarch, De Fortuna Romanorum, xiii.

Rome down to the latest times. It is impossible for any one at the present day and at this distance of time from Numa to understand this particular evidence of his personal existence, and to appreciate it to the proper extent. To feel it and to judge of it rightly, a man should have been born and bred a Roman. In our opinion it was this more than any thing else, which constituted the true ground of that unhesitating and almost instinctive conviction of the personal existence of Numa, which every individual Roman carried about him; and which every Roman of former times who has left any thing in writing behind him, whensoever he is led by his subject to allude to Numa, so unhesitatingly, so naturally, and almost so unconsciously to himself, expresses. It was that species of personal assurance of the reality of such a person as Numa, which was identified even with an old Roman's consciousness of his own existence; which met him on all sides both in public and private, in every relation, and on every occasion, and with respect to every duty, both of social and of domestic life. There was no college or society at Rome howsoever ancient or sacred, no act or observance of religion, no formality in the courts of law, no distinction of days in the calendar, with very few exceptions, which was not to be traced up to Numa. Every thing at Rome which came under men's notice most constantly, and appealed to their feelings and convictions most directly, was a memento of Numa. An ancient Roman had more of this kind to remind him perpetually of Numa than an an-

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than the capture, gives the countenance of *his* authority indeed to some such opinion. But Livy was a very uncritical writer: and very likely to make an observation of that kind without sufficient reflection. The assertion is certainly overstated; for it supposes the Commentaries of the pontiffs, that is, the Annales Maximi themselves, to have been involved in the same destruction: and that could not have been the case. The eclipse of June 21 B. C. 400 recorded in those Annals, 10 or 11 years at least before the capture, was still to be read in them in Cicero's time. In short we no where find even Livy complaining of the defect of the proper materials for his history older than the capture; as attributable to this cause at least. Nor does it appear that the older historians, Fabius, Cincius, Cato, Gellius, Hemina, Piso, made any complaint of the same kind. It is certain at least that neither Polybius nor Dionysius does so: and no inquirers of after-times searched more narrowly into early Roman history than they did.

cient Spartan of Lycurgus or an ancient Athenian of Solon. His case could be paralleled in that respect by nothing but that of the Jews of antiquity. An old Roman could no more have doubted of the existence of Numa than a Jew of that of Moses; and for the very same reasons too. It is truly surprising that learned men in modern times who could not be altogether ignorant of the nature of this proof of his existence, so familiar to his own countrymen, nor of its natural effect on their convictions; should nevertheless have considered it insufficient to remove their own prejudices and doubts to the contrary *.

* Dionysius of Halicarnassus ascribes to Numa, among the very first acts of his reign, the institution of the eight oldest and most sacred of the colleges or corporate bodies at Rome[1], the Curiales, the Flamines, the Celeres, the Augurs, the Vestals, the Salii, the Feciales, and the Pontifices. Among these institutions, those of the Pontiffs, the Salii, and the Vestal virgins respectively were eminently calculated to keep up his memory, and even to perpetuate his age and date, down to the latest times.

We hope to propose a list hereafter of the Pontifices Maximi, or heads of the Pontifical college, from Numa downwards, to the time when that title and that office were incorporated with the imperial in the person of Augustus Cæsar. And though from the want of the necessary data no complete list of this kind could now be compiled; one may be proposed which will be complete as far as it goes: for the names of many of these pontiffs are on record. No doubt, an exact account was preserved of them all; for the numbers of this college in particular, after it had been instituted, were always kept up and always full. There was no society, of equal antiquity, the succession of which was probably so little interrupted, as that of this. We have already seen[2] that the Annales Maximi came into being along with this order; and that it was the duty of the head of the college to keep those journals from the first; and that he did so. If so, this body could never want a standing test and criterion of its own antiquity; and of that of its founder.

With regard to the Salii; Plutarch[3] dates their institution in the eighth year of Numa's reign: Dionysius apparently in or soon after the first. But this is a point of little importance to their real antiquity. It is necessary however to observe that there were two orders of Salii; the Salii Martis or Palatini, and the Salii called Agonales or Collini; both alike twelve in number: the former the original order, and instituted by Numa[4],

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[1] ii. 64: 70: 72: 73. cf. Plutarch, Numa, vii. ix: xii: xiii: Livy, i. 20. Pliny, H. N. xxxv. 46. 550.

[2] Supra, p. 27.

[3] Numa, xii: xiii.

[4] Dionys. ii. 70: 71. Festus, xvii. 474. 7. Salios. Fragm. 63. Livy, i. 20. Lydus, De Mens. iii. 29. p. 44. l. 12: iv. 2. 51. l. 17: 27. p. 67. l. 16. iv. 36. p. 71. l. 14–72. l. 4. Servius, ad Æn. viii. 663: 664.

vi. The discovery of the sepulchre of Numa, and of the coffin in which he was buried, some centuries after his death.

the latter instituted by Tullus Hostilius[5]. This order too once brought into existence continued in existence down to the latest times. We shall have occasion to notice its peculiar rules more than once, in the course of these inquiries of ours into the calendars of Antiquity. Its characteristic insignia[4], the *tunica picta*, the breastplate over it, its coneshaped caps, its tripudiations, its peculiar target or shield, the *ancile*, with which tradition connected the name of Mamurius from the first[6], do not appear to have ever varied; and would be perpetual memorials of its antiquity, and of the circumstances under which it came into being.

But more particularly the songs of these Salii; which it is agreed were the most ancient things of their kind among the Romans, and yet by tradition, and by the best informed of the Romans, were ascribed to the composition of Numa himself[7]. Axamenta dicebantur carmina Saliaria quæ a Saliis sacerdotibus componebantur in universos homines . . . nam in deos singulos versus facti a nominibus eorum appellabantur; ut Janvalii, Junonii, Minervii[8]— At hoc quid ad verborum poeticorum ætatem? quorum si Pompilii regnum fons in carminibus Saliorum, neque ea a superioribus accepta, tamen habent septingentos annos[9].

With regard to the Vestal virgins; the temple of Vesta at Rome, according to Ovid, was founded by Numa; and almost in the first year of his reign.

Dena quater memorant habuisse Palilia Romam
Cum flammæ custos æde recepta sua est[10].

The order of Vestals does not appear to have been brought into being by Numa. The well known story of the mother of Romulus and Remus proves that there were Vestals at Alba Longa, before the foundation of Rome. But for any thing which is on record to the contrary Numa was the first who founded that order at Rome: and tradition attributes to him the appointment of four at first[11], which were afterwards increased to six[12]; by Servius Tullius, according to Plutarch[11], by Tarquinius Priscus, according to Dionysius[13].

The form of words made use of in the ceremony of *taking*, (as it was

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[5] Livy, i. 27. Dionys. ii. 70. Dio, Fragm. xxi. Cf. Servius, ad Æn. viii. 285.

[6] Ovid, Fasti, iii. 259–392. Dionys. ii. 70, 71. Plutarch, Numa, xii. xiii. Festus, xi. 219. 7. Mamurius Veturius.

[7] Cicero, De Oratore, iii. 51.

[8] Festus, i. 46. Cf. for references to these Carmina Saliaria, xi. 223. 1. Manuos: 230. 7. Matrem Matutam: 245. 6. Molucrum: xiv. 341. 4. Pescia: 347. 14. Pilumnoe: 361. 13. Præceptat: 383. 11. Promenervat: xvi. 427. 1. Redentruare.

[9] Varro De Lingua Lat. vi. 80. cf. Horace, Epp. ii. i. 86:

Jam Saliare Numæ carmen qui laudat et illud
Quod mecum ignorat solus vult scire videri.

[10] Fasti, vi. 257—282. cf. Dionys. Hal. ii. 64, 65: 67. Plutarch, Numa, xi. ix. Festus, xvi. 460. 2. Rotundam.

[11] Dionysius Hal. ii. 67. Plutarch, Numa, x.

[12] Festus, xvii. 503. 12. Sex Vestæ sacerdotes—Dionys. Hal. ii. 67.

[13] Ibid. iii. 67.

This discovery is circumstantially related by Livy[c], among the other particulars of the consular year of P. Cornelius Cethegus, M. Bæbius Tamphilus, U.C. 573—which, as our calendar shews, entered on the Ides of March that year, January 1. B.C. 181: and that this was the year of the discovery appears from the fact that the same Prætor Urbanus was still in office at the time of the discovery who came into office at the beginning of that year[d].

Both as to the fact and as to the date of this discovery Livy is corroborated by many other authorities[e]; in particular by Cassius Hemina, whom Pliny, referring to and quoting this part of his accounts themselves, styles[e] Vetustissimus

called,) these Vestal virgins was prescriptive, having been first made use of by Numa himself for that purpose. A. Gellius, i. 12: De more autem rituque capiundæ virginis, litteræ quidem antiquiores non exstant, nisi quæ capta prima est a Numa rege esse captam .... in libro primo Fabii Pictoris quæ verba Pontificem Maximum dicere oporteat quum virginem capit scriptum est. ea verba hæc sunt .... *Ita te Amata* capio .... *Amata* inter capiendum a Pontifice Max. appellatur quoniam quæ prima capta est hoc fuisse nomine traditum est.

We may observe on this subject of the different societies at Rome that one of the oldest, and almost coæval with the Foundation itself, if not actually so, was that of the Fratres Arvales; of which see A. Gellius vi. 7. cf. xi. 14. We shall have occasion to speak more at large of this particular society, at a future period of the present work. It professed to number Romulus himself among its first members. There can be no doubt that its rules were very ancient; and yet that they had been scrupulously observed all along.

Among other memorials too of the Foundation, or of the oldest kings, down to the latest times, we may mention the Ficus Ruminalis[14]: the Palatium, traditionally pointed out as the residence of Romulus[15], and the Regia, that of Numa[16]; and even that of Tullus Hostilius, and Ancus Martius[17].

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[c] xl. 29.

[d] Ib. 18. 19.

[e] Cicero, De Legibus, ii. 22. Valerius Maximus, i. 1. 12. De Religione. Festus, xii. 287. 4. Numam. Varro, De Lingua Lat. iv. 43, 44: Fragmenta, 206: 233. cf. Augustin, De Civitate, vii. 34. Pliny, H. N. xiii. 27. 739—741. Plutarch, Numa, xxii. Auctor De Viris Illustribus, Numa. Lactantius, i. 22.

[14] Varro, Fragmenta, 364. Festus, xvi. 462. 7. Ruminalem. Tacitus, Ann. xiii. 58. Pliny, H. N. xv. 20. 210: cf. H. N. xvi. 86. Conon, Narrationes, xlviii. Servius, ad Æn. viii. 90. Plutarch, Romulus, iv. xx.

[15] Dio, liii. 16: Plutarch, Romulus, xx.

[16] Festus, xvi. 432. 21. Regium: xii. 266. 6. Navia: 278. 14. Niger Lapis. Plutarch, Numa, xiv. Dio, Fragmenta, xx. Solinus, i. § 21. Servius, ad Æn. vii. 153.

[17] Varro, Fragmenta, 241. Apud Nonium, in Secundum: Tullum Hostilium in Veliis (habitasse) ubi nunc est ædes Deum Penatium; Ancum in Palatio ad portam Mugionis, secundum viam sub sinistra. cf. Solinus, i. 21—26.

auctor. He might in fact have been contemporary with the event, if, as Censorinus tells us[f], he was living or writing U.C. 608. The date of the discovery being comparatively so recent in Roman history; the fact is so far less liable to be called in question. That a grave then was accidentally laid bare at this time, containing a coffin which professed to be Numa's, and Libri or books which also professed to be his; it does not seem possible to deny. The only question can be whether the coffin discovered there was truly Numa's; and whether the books discovered there also were truly his or not: and as no doubt appears to have been entertained on either of those points at the time, we do not see how any one at present can pretend to know more about them than those who were living at that time, and had the best opportunity of judging for themselves. Two arcæ or coffins, we are told by Livy, were brought to light, each having an inscription upon it in Greek and Latin characters; one, that the body of Numa Pompilius son of Pompo[g] was deposited in it, the other that his Libri or books were contained in that. These books came into the hands of the Prætor Urbanus, an inquisitive person, and *studiosus legendi;* and after having been carefully examined by him, either all or part of them, at his recommendation, were destroyed by order of the senate: not because they were not Numa's, but because for some reason or other, which has not been explained, they were calculated to endanger the established religion: Dissolvendarum religionum erant*.

* It may be added to the other unintentional coincidences which serve to authenticate the general circumstantial truth of the account of this discovery, that, according to Festus[1], Numa resided in the Janiculum; and according to Plutarch[2], and to Dionysius[3], he was buried in the Janiculum: and these coffins, discovered with his remains and his books, were found Sub Janiculo[4] also.

Plutarch[2] speaks of much rain as having fallen just before the discovery; adding that that circumstance contributed to it, by washing away the earth from the coffins. Livy tells us of the first half of that consular year, (which began as we have stated Jan. 1 B.C. 181,) that it was remarkable

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[f] De Die, xvii.

[g] Cf. Dionysius, ii. 58: Plutarch, Numa, xxi.

[1] xii. 287. 4. Numam Pompilium.

[2] Numa, xxii.

[3] ii. 76.

[4] Livy, xl. 29.

vii. The Julian or Gregorian calendar; which attests the prior existence of the calendar of Numa, in its proper order of time, by its own at the present day. The original of the modern Gregorian calendar was the Julian; and the original of the Julian calendar was the calendar of Numa. No one will pretend to deny that the Julian calendar itself was derived from an older and preexisting one; with which it agreed in every respect except the lengths of some of the months; or that this preexisting calendar was either the calendar of Numa, or one directly derivable from it, and in its form and constitution only accidentally distinguished from it. The fact at least is unquestionable, that the names and order of the months in the Julian correction were derived from this older calendar. The inference therefore is just, that even the civil calendar of modern Europe, through the Gregorian or the Julian, is still that of Numa Pompilius; and that in the names and the order of its months, (especially in those of January and February, and in the particular length of the latter,) we are still observing the constitutions of Numa—we have still a memento of Numa. The length of February in the Roman calendar, from Numa to Cæsar, and in the Julian calendar, from Cæsar to the present day, as a

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for drought: Sex menses nunquam pluisse memoriæ proditum est[4]. But he himself recognizes bad weather, that is *rainy*, in another part of the year, and in Spain at least[5]. When the discovery was made, they were ploughing in the field belonging to L. Petillius the scribe[4]: so that it must have been made in the latter half of the year, probably in November.

The books discovered on this occasion, according to Livy and Valerius Maximus, were seven in Latin, De Jure Pontificio, and seven in Greek, De Disciplina Sapientiæ. Valerius Antias, quoted by Plutarch[2], seems to have recorded that 12 on each subject—the one in Latin, the others in Greek—had been originally buried with him. The historian Piso quoted by Pliny[6] makes the number discovered seven of each description. Livy would imply that both sets were burnt by order of the senate; and publicly, in the comitium[7]; but Valerius Maximus and our other authorities that one of them only (De Disciplina Sapientiæ, and in Greek) was destroyed; the other was ordered to be preserved. The latter are quoted (as if still in existence) by Fulgentius, Expos. Serm. Ant. Tutuli, Mythologicωn 174. Cf. Lydus, De Ostentis, 16. 292. 10.

[4] cap. 29.

[5] cap. 33.

[6] H. N. xiii. 13. Cf. Varro, Fragm. 206.

[7] Cf. Plutarch, Numa, xxii.

general rule, has never varied: and yet that length was prescribed by Numa, and for a special reason which will appear hereafter was made an exception to that of the rest of the months. The intercalary rule too of the Julian calendar was founded at bottom on that of the calendar of Numa; and *mutatis mutandis* it is the same with it still. On the strength of these coincidences, it may be said that we have the same evidence of the existence of Numa at present, as of that of Julius Cæsar; and that we are as much bound to believe in the one as in the other. For what is there at the present day to attest the personal existence of Cæsar to our own senses and to our own observation, but his correction of the calendar which we are using ourselves? And who can make use of the calendar of Cæsar, even at present, and not make use of that of Numa Pompilius too? Where would this correction have been, or what would it have been, without the correction of Numa Pompilius? Certainly, a different thing in the names and order of its months and in its peculiar intercalary rule at least, if in nothing else.

SECTION II.—*Testimonies of antiquity to the nature of the Calendar of Numa.*

After these observations, (tending to confirm that common belief in the personal existence of Numa which was always entertained before the rise of the modern sceptical opinions on that point,) we shall proceed to the consideration of his calendar. The first thing necessary is the production of general or particular testimonies to its nature and constitution, whether *per se*, or as opposed to that of Romulus. Testimony however to these points is so mixed up with testimony to other particulars that, in order to avoid unnecessary repetitions, we must be content at present to state the substance of such testimonies in the shape of general propositions; the proofs of which must be reserved for a future opportunity.

i. Then, with regard to the nature and character of the year of Numa *per se*; it appears from testimony generally that the year of Numa was always considered to have been *lunar*, and yet to have been regulated also in some manner or other by the *sun*. That is, the year of Numa was neither exclusively a lunar nor exclusively a solar year, but something made up of both; i. e. properly lunæsolar: regulated in its details at all times by the moon, yet so digested and ordered in its details also as to agree at stated times with the sun.

ii. With regard to the year of Numa as opposed to that of Romulus; testimony is uniform, i. That no change was made by Numa in the *names* of the months, nor in the *order* of the months, nor even in the lengths of most of the months, in the year of Romulus. ii. That notwithstanding the year of Numa consisted of *twelve* months, the year of Romulus of *ten*; the year of Numa contained 355 days, that of Romulus 304. It follows consequently that the changes actually made by Numa in the year of Romulus, and therefore the actual circumstances of distinction between *his* calendar and that of Romulus, could have consisted in two things only; i. The addition to it of two new months under two new names: ii. The disposal of these two months either both at the beginning or both at the end, or one at the beginning the other at the end, of the year of Romulus.

Such we say, according to the uniform testimony of antiquity on these points, must have been the only changes which Numa could have made in the year of Romulus; and such the only material circumstances of distinction between the new calendar attributed to him and the older one of Romulus. They amount in substance to the five following propositions. i. That two months were added by Numa Pompilius to the calendar of Romulus, making up the number of its months from ten to twelve. ii. That these two months contained together 51 days at least, the difference of a year of 355 days and of one of 304. iii. That the name of Januarius was given to one of these months, and that of Februarius to the other. iv. That Januarius was placed at the beginning of the year, Februarius at the end. v. That Januarius consisted of 29 days, Februarius of 28.

And since in these five propositions every thing is actually comprehended in which the calendar of Numa differed from that of Romulus; this is the proper time to produce the testimonies in *terms* from which each of them has been collected, and by which each of them must be established. We shall therefore proceed to do this; premising only that, as testimony to one of the number is too much mixed up with testimony to another to be stated distinctly in every instance, the reader will doubtless excuse it, if the same order is not seen to be observed in the allegation of the proofs as in the proposition of the things to be proved. It will suffice if, in one or other of the testimonies about to be adduced, each of our propositions finds its proper confirmation.

i. Tempora digereret cum conditor Urbis, in anno
Constituit menses quinque bis esse suo[h].

Martis erat primus mensis Venerisque secundus:
Hæc generis princeps ipsius ille pater.
Tertius a senibus; juvenum de nomine quartus:
Quæ sequitur numero turba notata fuit.
At Numa nec Janum nec avitas præterit umbras;
Mensibus antiquis adposuitque duos[i].

Nec totidem veteres quot nunc habuere Kalendas:
Ille minor geminis mensibus annus erat[k].

Ergo animi indociles et adhuc ratione carentes
Mensibus egerunt lustra minora decem.
Annus erat decimum cum luna repleverat orbem.
Hic numerus magno tunc in honore fuit[l].

Primus oliviferis Romam deductus ab arvis
Pompilius menses sensit abesse duos:
Sive hoc a Samio doctus qui posse renasci
Nos putat, Egeria sive monente sua[m].

Sed tamen antiqui ne nescius ordinis erres,
Primus ut est Jani mensis et ante fuit.
Qui sequitur Janum veteris fuit ultimus anni,
Tu quoque sacrorum Termine! finis eras.
Primus erat Jani mensis quia janua prima est:
Qui sacer est imis manibus imus erat[n].

Annus erat brevior: nec adhuc pia Februa norant:
Nec tu dux mensum Jane biformis! eras[o].

ii. Postea sive a Numa ut ait Fulvius, sive ut Junius a Tarquinio, duodecim facti sunt menses, et dies CCCLV, quam-

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[h] Ovid, Fasti, i. 27. [i] Ibid. 39. [k] Ibid. iii. 99. [l] Ibid. 119.
[m] Ibid. 151. [n] Ibid. ii. 47. [o] Ibid. v. 423.

vis luna duodecim suis mensibus CCC LIV videatur explere . . . certe ad annum priorem unus et quinquaginta dies accesserunt: qui quia menses duos non implerent, sex illis cavis mensibus dies sunt singuli detracti, factique sunt dies quinquaginta septem: et ex his duo menses, Januarius undetriginta dierum Februarius duodetriginta[p]—Nomina decem mensibus antiquis Romulum fecisse Fulvius et Junius auctores sunt . . . . ceterum Januarium et Februarium postea quidem additos, sed nominibus jam ex Latio sumtis[q].

iii. Sequitur Julius, qui, cum secundum Romuli ordinationem, Martio anni tenente principium, Quintilis a numero vocaretur; nihilominus tamen etiam post præpositos a Numa Januarium ac Februarium retinuit nomen, cum non videretur jam quintus esse sed septimus[r]—Sed secutus Numa, quantum sub cœlo rudi et sæculo adhuc impolito solo ingenio magistro comprehendere potuit, vel quia Græcorum observatione forsan instructus est, quinquaginta dies addidit; ut in trecentos quinquaginta quatuor dies quibus duodecim lunæ cursus confici credidit annus extenderetur: atque his quinquaginta a se additis adjecit alios sex, retractos illis sex mensibus qui triginta habebant dies; id est de singulis singulos: factosque quinquaginta et sex dies in duos novos menses pari ratione divisit; ac de duobus priorem Januarium nuncupavit primumque anni esse voluit . . . secundum dicavit Februo deo . . . paullo post Numa unum adjecit diem quem Januario dedit[s].

iv. Terminalia, quod is dies anni extremus constitutus. duodecimus enim mensis fuit Februarius; et cum interkalatur inferiores quinque dies duodecimo demuntur mense[t]—Mensium nomina sunt aperta fere si a Martio ut antiqui instituerunt numeres . . . dehinc quintus, Quintilis, et sex deinceps usque ad Decembrem a numero. ad hos qui additi prior a principe Jano Januarius appellatur. posterior ut iidem dicunt scriptores ab diis infereis Februarius appellatus, quod tum heis parentetur[u].

v. Februario autem mense, qui tunc extremus anni mensis erat, mortuis parentari voluerunt: quod tamen D. Brutus, ut scriptum a Sisenna est, Decembri facere solebat . . . sed mensem credo extremum anni ut veteres Februarium sic hic Decembrem sequebatur[w].

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[p] Censorinus, De Die Natali, xx.

[q] Ibid. xxii.

[r] Macrobius, Saturnalia, i. 12. 261.

[s] Ibid. 13. 263.

[t] Varro, De Lingua Latina, v. 55.

[u] Ibid. v. 60.

vi. Atque omnium primum ad cursum lunæ in duodecim menses describit annum[x]—Annum quoque in duodecim menses, fastos dies nefastosque, descripsit[y]—Ἐνιαυτόν τε πρῶτος εὕρατο, εἰς δώδεκα μῆνας τὴν ἡλιακὴν κατανείμας περίοδον[z]—Et annum descripsit in decem (duodecim ?) menses, prius sine aliqua computatione confusum[a]—Annum in xii menses distribuit, additis Januario et Februario[b]—Numa Pompilius duos menses anno addidit, Januarium et Februarium, quoniam prius decem mensibus (annus) appellabatur[c]—Numa Pompilius duos menses anno addidit, Januarium et Februarium, quum antehac decem tantum menses apud Romanos fuissent[d]—Νουμᾶς . . . . τῷ ἐνιαυτῷ δύο μῆνας προσέθηκε, τόν τε Ἰανουάριον καὶ τὸν Φεβρουάριον, δεκαμηνιαίου τοῦ ἐνιαυτοῦ πρὸ τούτου χρηματίζοντος[e]—Numa Pompilius . . hic menses duos anno addidit (propter) Janum et Februum, nempe Januarium atque Februarium, quum decem antea dicerentur[f]—Qui duos menses anno addidit, Januarium et Februarium, quum ante hunc decem tantum menses apud Romanos fuissent[g]—Sed Januarium Romani Februarium Numa Pompilius addidit, atque duodecim mensibus annum distinxit[h].

vii. Λέγεται δὲ καὶ τὸν Ἰανουάριον καὶ τὸν Φεβρουάριον παρ' αὐτοῦ τοῖς μησὶ προστεθῆναι, δωδεκάμηνον κατὰ τὸν τῆς σελήνης δρόμον νομοθετήσαντος λογίζεσθαι τὸν ἐνιαυτὸν, δεκάμηνον πρόσθεν ὄντα[i]—Διατάττει δὲ Νουμᾶς δυοκαίδεκα μηνῶν τὸν ἐνιαυτὸν πρὸς συντέλειαν τῶν τοῦ ἡλίου καὶ σελήνης δρόμων. καὶ ἐπὶ μὲν Ῥωμύλου ὁ νῦν καλούμενος Μάρτιος μὴν πρῶτος ἦν· ἐπὶ δὲ Νουμᾶ προσετέθησαν Ἰανουάριος καὶ Φεβρουάριος[k].

viii. Inter mensem Februarium qui tunc esset extremus et inter Kalendas Martias quæ tunc erant primæ[l]—Et hi erant tantum decem menses. duo vero propter rationem signorum anni interkalabantur, qui postea a Jano et a Februo nominati sunt. Februus autem est Ditis pater, cui eo mense sacrificabatur[m]—Mense Januario, qui est penultimus: nam ut etiam in primo diximus . . . a Martio mense inchoabat annus apud majores[m]—Hic extremum anni sub Aquarii sidere collocat, ut quia primus nascentis anni dies ab urbe condita Kal. Martiis fuit inde Februarius ultimus anni haberetur[n].

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[w] Cicero, De Legibus, ii. 21. Cf. Plutarch, Quæstiones Romanæ, xxxiv. Supra, p. 98.

[x] Livy, i. 19.

[y] Florus, i. cap. 2. § 3.

[z] Suidas, Νουμᾶς Πομπίλιος.

[a] Eutropius, i. 2.

[b] Auctor De Viris Illustrib. Numa.

[c] Eusebius, Chron. Arm. Lat. ii. 179. ad ann. 1302.

[d] Thesaurus Temporum, Jerome, in Chron. ad ann. 1306. Ol. 17. 2.

[e] Syncellus, 398. 4–8.

[f] Samuel Presbyter, Chron. Arm. Lat. Pars i. 23.

[g] Cassiodorius, in Chron. De Numa.

[h] Isidore, De Natura Rerum, cap. iv. 247. Cf. Origines, v. 33. 41.

[i] Zonaras, vii. 5. 322 D.

[k] Lydus, De Mensibus, i. 16. p. 9. l. 10. Cf. iii. 15. 39. 15 : iv. 1. 50, 51. Cf. Malela, vii. 184. 20. 16 sqq.

ix. Ἄλλοι δὲ ἱστοροῦσι τὸν μὲν Δεκέμβριον ἀπὸ τοῦ Μαρτίου δέκατον εἶναι τὸν δὲ Ἰανουάριον ἑνδέκατον τὸν δὲ Φεβρουάριον δωδέκατον, ἐν ᾧ καθαρμοῖς τε χρῶνται καὶ τοῖς φθιμένοις ἐναγίζουσι τοῦ ἐνιαυτοῦ τελευτῶντος· μετατεθῆναι δὲ τούτους, καὶ γενέσθαι τὸν Ἰανουάριον πρῶτον, ὅτι τῇ νουμηνίᾳ τούτου τοῦ μηνὸς, ἣν ἡμέραν Καλάνδας Ἰανουαρίας καλοῦσιν, οἱ πρῶτοι κατεστάθησαν ὕπατοι τῶν βασιλέων ἐκπεσόντων. πιθανώτεροι δέ εἰσιν οἱ λέγοντες ὅτι τὸν μὲν Μάρτιον ὁ Ῥωμύλος, πολεμικὸς καὶ ἀρειμάνιος ὢν καὶ δοκῶν ἐξ Ἄρεος γεγονέναι, προέταξε τῶν μηνῶν ἐπώνυμον ὄντα τοῦ Ἄρεος· Νουμᾶς δὲ αὖθις, εἰρηνικὸς γενόμενος καὶ πρὸς ἔργα τῆς γῆς φιλοτιμούμενος τρέψαι τὴν πόλιν, ἀποστῆσαι δὲ τῶν πολεμικῶν, τῷ Ἰανουαρίῳ τὴν ἡγεμονίαν ἔδωκε, καὶ τὸν Ἰανὸν εἰς τιμὰς προήγαγε μεγάλας, ὡς πολιτικὸν καὶ γεωργικὸν μᾶλλον ἢ πολεμικὸν γενόμενον[o]—Ἥψατο δὲ καὶ τῆς περὶ τὸν οὐρανὸν πραγματείας οὔτε ἀκριβῶς οὔτε παντάπασιν ἀθεωρήτως. Ῥωμύλου γὰρ βασιλεύοντος . . ἓν φυλάττοντες μόνον, ὅπως ἑξήκοντα καὶ τριακοσίων ἡμερῶν ὁ ἐνιαυτὸς ἔσται. Νουμᾶς δὲ τὸ παράλλαγμα (i. e. the difference of the solar and the lunar year) τῆς ἀνωμαλίας ἡμερῶν ἕνδεκα γίνεσθαι λογιζόμενος, ὡς τοῦ μὲν σεληνιακοῦ τριακοσίας πεντήκοντα τέσσαρας ἡμέρας ἔχοντος, τοῦ δὲ ἡλιακοῦ τριακοσίας ἑξήκοντα πέντε, τὰς ἕνδεκα ταύτας ἡμέρας διπλασιάζων ἐπήγαγε παρ' ἐνιαυτὸν ἐπὶ τῷ Φεβρουαρίῳ μηνὶ τὸν ἐμβόλιμον, ὑπὸ Ῥωμαίων Μερκηδῖνον καλούμενον, εἴκοσι καὶ δύοιν ἡμερῶν ὄντα . . . μετεκίνησε δὲ καὶ τὴν τάξιν τῶν μηνῶν. τὸν γὰρ Μάρτιον πρῶτον ὄντα τρίτον ἔταξε, πρῶτον δὲ τὸν Ἰανουάριον ὃς ἦν ἑνδέκατος ἐπὶ Ῥωμύλου, δωδέκατος δὲ καὶ τελευταῖος ὁ Φεβρουάριος ᾧ νῦν δευτέρῳ χρῶνται. πολλοὶ δέ εἰσιν

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[l] Varro, Epistolicæ Quæstiones: apud Servium, ad Georg. i. 43.

[m] Servius, ad Georg. iii. 304.

[n] Philargyrius, ad Georg. iii. 304.

[o] Plutarch, Quæstiones Romanæ, xix.

οἳ καὶ προστεθῆναι τούτους ὑπὸ Νουμᾶ τοὺς μῆνας λέγουσι, τόν τε Ἰανουάριον καὶ τὸν Φεβρουάριον· ἐξ ἀρχῆς δὲ χρῆσθαι δέκα μησὶν εἰς τὸν ἐνιαυτόν[p]—Δοκεῖ δέ μοι τὸν Μάρτιον ὁ Νουμᾶς ἐπώνυμον ὄντα τοῦ Ἄρεος ἐκ τῆς προεδρίας μεταστῆσαι, βουλόμενος ἐν παντὶ τῆς πολεμικῆς δυνάμεως προτιμᾶσθαι τὴν πολιτικήν. ὁ γὰρ Ἰανὸς, ἐν τοῖς παλαιοῖς πάνυ εἴτε δαίμων εἴτε βασιλεὺς γενόμενος πολιτικὸς καὶ κοινωνικὸς, ἐκ τοῦ θηριώδους καὶ ἀγρίου λέγεται μεταβαλεῖν τὴν δίαιταν· καὶ διὰ τοῦτο πλάττουσιν αὐτὸν ἀμφιπρόσωπον, ὡς ἑτέραν ἐξ ἑτέρας τῷ βίῳ περιποιήσαντα τὴν μορφὴν καὶ διάθεσιν[q],

SECTION III.—*Remarks on the preceding Testimonies.*

Among these various statements, we need not hesitate to reject that of Eutropius; which, if his text is not to be corrected by reading *duodecim* instead of *decem*, either confounds the year of Numa with that of Romulus, or asserts of it what is contradicted by every other testimony, and therefore cannot be true.

The opinion, which appears in the quotations from Plutarch, that the year even before the time of Numa consisted of *twelve* months, only of unequal and of arbitrary lengths, amounting to 360 days in all, as we observed on a former occasion[r], probably confounds the Primitive equable calendar with the Nundinal correction derived from it. In any case it is entitled to no consideration, especially as confronted with the other statement, which appears in Plutarch also; that the year first came to consist of twelve months in the time of Numa.

The statement of Servius differs from this only in supposing that the last two of these twelve months (either older than Romulus or as old as Romulus) had no proper names, though they had an actual existence, before the time of Numa: an opinion refuted, as we have already observed[s], not only by its inconsistency with other and better testimonies on the same point, but by its own improbability, and by the reason of things. For if the year of Romulus really consisted of twelve months, ten of which had names; what possible motive could there have been for leaving two months without a name, and those the two last? to each of which it must have been so obvious and so easy to give names, analogous to those of the months which immediately preceded them at least, from September to December: that of Undecember to the eleventh, and that of Duodecember to the twelfth.

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[p] Plutarch, Numa, xviii. Compare cap. xix. which supplies further reasons and arguments of the truth of this latter opinion.

[q] Ibid. xix.

[r] P. 70.

[s] Supra, p. 75, 76.

We need not hesitate therefore to reject this statement of Servius', as totally destitute of support either from testimony *ab extra* or from its own intrinsic reasonableness and probability. A singular opinion appears in the quotation from Isidore, (if his text also is not corrupt,) that Januarius was added to the Roman calendar by Romulus, Februarius by Numa; on which principle the year before the time of Romulus must have consisted of ten months, and from his time of eleven months: but not of twelve months, until the time of Numa Pompilius. It is not worth while to enquire into the probable grounds of an opinion like that. These four opinions however, or four different statements, to a contrary effect, Eutropius', Plutarch's, Servius', Isidore's, being set aside; the proof of the five propositions, premised above, is complete: though it must still be admitted that even our remaining authorities are not unanimous on one point; that of the order of Februarius in the calendar of Numa, and whether it was always the last month, or always the second. But the best and most trustworthy among them represent it as originally the last; and the confusion of ideas respecting the original place of this month in the calendar of Numa, which appears in some of the preceding testimonies, is easily explained by the fact that its seat in the Julian calendar, and in the old Roman calendar immediately prior to the Julian, was not that which it occupied, according to the arrangements of Numa, at first: and yet it was one which it had long been occupying in the time of these authorities; long enough in fact to make it be forgotten that it had ever occupied any other. The truth on this point, and on every other, (connected with the original constitution of the calendar,) of a nicer and more abstruse kind, as far as we have been able to discover is most distinctly declared by Ovid; who seems to have known more about it than any other of his contemporaries.

This fact then of the addition of two months by Numa to the year of Romulus, under these names of Januarius and of Februarius respectively, may be considered clearly established. And as to the places assigned them in the order of the calendar, one at the beginning the other at the end of the year; the testimonies above produced admit of being confirmed in that respect by the etymon of these names themselves, in each instance, and by the reasons involved in such names; requiring the months so denominated to stand one at the beginning, the other at the end, of their proper calendar and proper year.

SECTION IV.—*Confirmation of the seat of Januarius in the Calendar of Numa by the etymon of the name.*

In most of the preceding testimonies, the name of the month Januarius appears to be derived from Janus. And to these we may add the following.

i. Janus ergo, a quo sumsit exordium (Varro,)[t] quæro quisnam sit? respondetur mundus est ... cur ergo ad eum dicuntur rerum initia pertinere fines vero ad alterum quem Terminum vocant? nam propter initia et fines duobus istis diis duos menses perhibent dedicatos, præter illos decem quibus usque ad Decembrem caput est Martius, Januarium Jano Februarium Termino. ideo Terminalia eodem mense Februario celebrari dicunt, cum fit sacrum purgatorium quod vocant Februum, unde mensis nomen accepit[u]—ii. Hunc fugatum hospitio Janus exceperat, de cujus nomine Janiculum dictum est et mensis Januarius constitutus est. ipse bifrons exprimitur, quod in medio constitutus annum incipientem pariter et recedentem spectare videatur[w]—ii. Anni autem esse deum illa res probat quod ab eo prima pars anni nominatur. nam ab Jano Januarius nuncupatus est[x].

Yet there was another opinion, which derived it from Janua.

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[t] Cf. De Civitate, vi. 3–9: vii. 2.

[u] Augustin, De Civitate, vii. 7.

[w] Cyprian, De Idolorum Vanitate, Opp. p. 12. Of Saturn and Janus.

[x] Servius, ad Æn. vii. 607.

i. Primus enim Jani mensis quia Janua prima est:
Qui sacer est imis manibus imus erat[a].

ii. Januarius mensis a Jano dictus[b] cui fuit a gentilibus consecratus; vel quia limes et janua sit anni. unde et bifrons idem Janus pingitur ut introitus anni et exitus demonstretur[c]—iii. *Τῶν δύο πυλῶν τούτων μεμνῆσθαι καὶ Παρμενίδην ἐν τῷ φυσικῷ*[d] *φασι* (Numenius and Cronius) *Ῥωμαίους τε καὶ Αἰγυπτίους. Ῥωμαίους γὰρ τὰ Κρόνια ἑορτάζειν ἡλίου κατ' Αἰγόκερων γενομένου...καταβατικὴ δὲ αὐτοῖς ἡ ἀπ' Αἰγόκερω ὁδός. διὸ Ἰανούαν εἰπόντες τὴν θύραν καὶ Ἰανουάριον μῆνα τὸν θυραῖον προσεῖπον*[e].

Besides these two etymons of the name of this month, it does not appear that any other was ever proposed: and it is almost self evident, on etymological and grammatical principles, that no other could have been proposed. We shall not undertake to decide between them at present; for we could not properly do so without first instituting an inquiry into the nature and meaning of that mythological fiction of antiquity which was known by the name of Janus: and it would take up too much time and would lead to too long a digression to enter upon that question at present. Whichever of these opinions is adopted, whether that which derives the name of the month from *Janus*, or that which derives it from *Janua;* the inference deducible, respecting the site of the month so called, will still be the same. The month which bore that name could not possibly have stood any where, consistently with its name and with the relation implied in its name at least, except at the beginning of the year.

SECTION V.—*Confirmation of the seat of Februarius in the Calendar of Numa by the etymon of the name also.*

There is still less difference of opinion respecting the etymon of Februarius. It seems to be agreed among all our authorities that this name was derived from an ancient ritual term, in the Latin or the Sabine language, *februum;* denoting *purgamentum piamen piaculum.*

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[a] Ovid, Fasti, ii. 51.

[b] Cf. 400. C. De Ecclesiasticis Officiis, i. 4.

[c] Isidore, Origines, v. 33. 41. Cf. De Natura Rerum, iv. 247.

[d] Cf. our Fasti Catholici, i. 170. note, Diss. iv. ch. ii. sect. v.

[e] Porphyry, De Nympharum Antro, xxiii. Trajecti ad Rhenum, 1765.

i. Februum Sabini purgamentum; et id in sacreis nostreis verbum. nam et Lupercalia Februario; ut in Antiquitatum libreis demonstravi[f]—Rex cum ferias menstruas Noneis Februareis edicit hunc diem Februatum appellat[f]—Ad hos (menses) qui additi prior a principe Jano Januarius appellatus. posterior ut iidem dicunt scriptores ab deis infereis Februarius appellatus quod tum heis parentetur. ego magis arbitror Februarium a die *februato,* quod tum *februatur* populus, id est luperceis nudeis lustratur antiquum oppidum Palatium, gregibus cinctum[g]—ii. Et Januarium ab Jano cui attributus est nomen traxisse, Februarium a Februo. est *februum* quicquid piat purgatque; et *februamenta* purgamenta: item *februare* purgare et purum facere. *februum* autem non item usquequaque dicitur. nam aliter in aliis sacris *februatur,* hoc est purgatur. in hoc autem mense Lupercalibus cum Roma lustratur salem calidum ferunt quod *februum* appellant, unde dies Lupercalium proprie *februatus,* et ab eo porro mensis Februarius vocitatur[h]—iii. De duobus priorem Januarium nuncupavit primumque anni esse voluit tanquam bicipitis dei mensem, respicientem ac prospicientem transacti anni finem futurique principia. secundum dicavit Februo deo, qui lustrationum potens creditur. lustrari autem eo mense civitatem necesse erat quo statuit ut justa diis manibus solverentur[i]—iv. Februarius mensis dictus quod tum, id est extremo mense anni, populus februaretur, id est lustraretur ac purgaretur: vel a Junone *februata* quam alii *februalem* Romani *februlem* vocant; quod ipsi eo mense sacra fiebant, ejusque feriæ erant lupercalia, quo die mulieres *februabantur* a lupercis amiculo Junonis, id est pelle caprina. quam ob caussam is quoque dies *februatus* appellabatur. quæcumque denique purgamenti caussa in quibusque sacrificiis adhibentur *februa* appellantur, id vero quod purgatur dicitur *februatum*[k]—v. Februarius nuncupatur a Februo id est Plutone, cui eo mense sacrificabatur. nam Januarium diis superis Februarium diis manibus Romani consecraverunt[l]—vi. Τῶν δὲ ὑπὸ Νουμᾶ προστεθέντων ἢ μετατε-

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[f] Varro, De Lingua Latina, v. 54.

[g] Ibid. 60.

[h] Censorinus, De Die Natali, xxii.

[i] Macrobius, Saturnalia, i. 13. 263.

[k] Festus, vi. 145. 2. Februarius.

[l] Isidore, Origines, v. 33. 41. Cf. De Natura Rerum, iv. 247.

θέντων ὁ μὲν Φεβρουάριος οἷον καθάρσιος ἄν τις εἴη· καὶ γὰρ ἡ λέξις ἔγγιστα τοῦτο σημαίνει, καὶ τοῖς φθιτοῖς ἐναγίζουσι τότε, καὶ τὴν τῶν Λουπερκαλίων ἑορτὴν εἰς τὰ πολλὰ καθαρμῷ προσεοικυῖαν τελοῦσιν. ὁ δὲ πρῶτος Ἰανουάριος ἀπὸ τοῦ Ἰανοῦ[m]—*Τὰ δὲ Λουπερκάλια τῷ μὲν χρόνῳ δόξειεν ἂν εἶναι καθάρσια· δρᾶται γὰρ ἐν ἡμέραις ἀποφράσι τοῦ Φεβρουαρίου μηνὸς, ὃν καθάρσιον ἄν τις ἑρμηνεύσειε· καὶ τὴν ἡμέραν ἐκείνην τὸ παλαιὸν ἐκάλουν Φεβράτην*[n]—*Διὰ τί κύνα θύουσιν οἱ Λούπερκοι;...πότερον ὅτι καθαρμός ἐστι τῆς πόλεως τὰ δρώμενα, καὶ τὸν μῆνα Φεβρουάριον καλοῦσι, καὶ...τὴν ἡμέραν ἐκείνην Φεβράτην, καὶ Φεβράρε τῷ τῶν σκυτῶν ἤθει καθικνεῖσθαι*[o]; vii. *Ὁ δὲ αὐτὸς οὗτος σοφιστὴς* (Pompeianus *ὁ Φιλαδελφεὺς*) *Φεβρουαρίῳ μηνὶ ὡς Ῥωμαῖοι λέγουσι· (τὸν δὲ μῆνα τοῦτον κληθῆναί φησιν ὁ* Μαυρούσιος Ἰόβας *ἀπὸ τῶν κατουδαίων φόβων, κατ᾽ ἀναίρεσιν τῶν δειμάτων. ἐν ᾧ τοῦ χειμῶνός ἐστι τὸ ἀκμαιότατον, καὶ ἔθος τότε τοῖς κατοιχομένοις τὰς χοὰς ἐπιφέρειν πολλαῖς ἡμέραις*[p]—viii. *Ὅτι τὸν Φεβρουάριον ἐπίτηδές φασι τοὺς Θούσκους ἐλαττῶσαι, ἐπειδὴ ταῖς τῶν καταχθονίων ἑορταῖς φαίνεται πρὸς τοὔνομα χωρηθεὶς, καὶ οὐ θέμιτον ἦν ἴσα τοῖς οὐρανίοις αὐτοὺς τιμᾶσθαι*[q]—*Τῷ Φεβρουαρίῳ μηνὶ ἀπὸ Φεβρούας θεᾶς οὕτω προσαγορευομένης τὸ ὄνομα γέγονεν. Φεβρούαν δὲ ἔφορον καθαρτικὴν τῶν πραγμάτων* (corr. *τῶν καθαρτικῶν πραγμάτων*) *οἱ Ῥωμαῖοι παρέλαβον.* Ἀνύσιος *δὲ ἐν τῷ περὶ μηνῶν Φεβροῦον τὸν καταχθόνιον εἶναι τῇ Θούσκων φωνῇ λέγει, καὶ.θεραπεύεσθαι πρὸς τῶν Λουπερκῶν ὑπὲρ ἐκδόσεως τῶν καρπῶν*[r].

ix. Februa Romani dixere piamina patres:
  Nunc quoque dant verbo plurima signa fidem.
Pontifices ab rege petunt et flamine lanas,
  Queîs veteri lingua februa nomen erat.
Quæque capit lictor domibus purgamina certis
  Torrida cum mica farra vocantur idem.
Nomen idem ramo qui cæsus ab arbore pura
  Casta sacerdotum tempora fronde tegit.
Ipse ego flaminicam poscentem februa vidi:
  Februa poscenti pinea virga data est.
Denique quodcunque est quo pectora nostra piamur
  Hoc apud intonsos nomen habebat avos.

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[m] Plutarch, Numa, xix.

[n] Ibid. Romulus, xxi. Cf. Quæstiones Romanæ, xix.

[o] Ibid. Quæstiones Romanæ, lxviii.

[p] Athenæus, iii. 53.

[q] Lydus, De Mensibus, iii. 44. p. 47. l. 21.

[r] Ibid. iv. 20. 61. 18. Cf. p. 62. 3-12.

Mensis ab his dictus secta quia pelle Luperci
  Omne solum lustrant, idque piamen habent.
Aut quia placatis sunt tempora pura sepulcris,
  Tunc cum ferales præteriere dies [s] [*].

It thus appears that Februarius received its name in the calendar of Numa, from the ceremony of the Februatio; especially that of the Lupercalia: and this fact, along with the other that the Feralia or Parentalia were attached to this month, is a strong argument of its proper seat in the

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[*] Ausonius, Parentalia (Præfatio, N° 158). Titulus libelli est Parentalia, antiquæ appellationis hic dies, et jam inde ab Numa cognatorum inferiis institutus. Item Præfatio versibus annotata. N° 159.

5. Nænia funereis satis officiosa querelis,
  Annua ne tacitus munera prætereas:
Quæ Numa cognatis sollemnia dedicat umbris
  Ut gradus aut mortis postulat aut generis.

Eclogæ, de Mensibus Monosticha, 376.

1. Primus Romanas ordiris Jane! Kalendas,
  Februa vicino mense Numa instituit.

Distícha de iisdem Mensibus, 377.

1. Jane nove! primo qui das tua nomina mensi,
  Jane bifrons! spectans tempora bina simul.
Post superûm cultus vicino februa mense
  Dat Numa, cognatis manibus inferias.

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378. Quoteni dies sint mensium singulorum.

7. Unus erat tantum duodetriginta dierum
Quem Numa præposito voluit succedere Jano.

Hence it is that Ausonius styles February Mensis Numæ, ἁπλῶς. Vide Eclogæ, 371. Ratio dierum anni vertentis.

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12. Quinto qui protenus anno
  Mense Numæ extremo nomen capit embolimæi.

Ibid. 381. Quotæ Kalendæ &c. De xix. Kal. Febr.

7. Hoc numero mensisque Numæ redit auctumnique
Principium referens Bacchi September alumnus.

Ibid. 382. In quo mense quod signum sit.

2. Mense Numæ in medio solidi stat sidus Aquarî.

[s] Ovid, Fasti, ii. 19–34.

order of the year. For this Februation or lustration of the city was general, extending to every part of it; and those Parentalia were expiatory sacrifices, intended to conciliate the peace of the dead: neither of which could take place on a general scale with more propriety than at the end of the year; neither a general purgation of the city from all the defilements and impurities which it might have contracted in the course of the preceding year, nor sacrifices and offerings designed to propitiate the Dii Manes for both the past and the coming year.

It is another strong argument of the same thing that the Terminalia or feast of Terminus was fixed by Numa himself to the 23d of this month; which Ovid on that account calls Sacrorum terminus, and Varro Extremus anni dies: though there were five days still left even in February after it. It is an equally strong intimation of the same thing that the proper seat of the intercalary month in the proper years was in February, on the day after the 23d of that month. Omni autem interkalationi, says Macrobius[t], mensis Februarius deputatus est quoniam is ultimus anni erat. Nor can there be any doubt that in every form of the lunæsolar year the natural seat of the intercalary, that is the supplementary, month is the end of the year[u].

Lastly, it is a further argument of the same thing, and (as it will be seen when it comes to be explained) as strong an argument as any, that Februarius alone in the calendar of Numa was a month of 28 days; every other was one of 29 or 31: not because of any preference of the odd to the even number, which the ancients generally assign as the reason of this distinction, but because the nature of Numa's lunar cycle and the standard of the mean lunation on which it was founded, in pursuance of a system of compensations of excesses of a certain kind by defects of a contrary kind, required that, while every other month should be 29 or 31 days long after a certain order, the last should be one of 28 days only; and so far should be singular in that respect.

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[t] Saturnalia, i. 13. 265.

[u] Fasti Catholici, Introduction to the Tables, p. 86. Part ii. ch. i. s. v.

SECTION VI.—*On the length of the Interregnum after the death of Romulus.*

The date of the death of Romulus being fixed by that of the eclipse, Quinctilis 7 in the 43d Nundinal year, May 26 in the corresponding Julian year B.C. 715; the first thing necessary to the determination of the epoch of the calendar of Numa is to ascertain the length of the interregnum, after the death of Romulus and before the accession of Numa.

Plutarch's account of this interregnum is peculiar. After mentioning the concurrence of both the parties, which at this time composed the community or body politic at Rome, (both the original colonists of Romulus and the Sabines incorporated with them from the time of Tatius,) in a common desire to be still governed by a king, but the dispute between them which of the two should furnish this king; he proceeds[w]: Ὑπὲρ μὲν οὖν τούτων ἐστασίαζον. ὅπως δὲ μὴ σύγχυσιν ἐκ τῆς ἀναρχίας ἡ στάσις ἀπεργάσηται μετεώρου τοῦ πολιτεύματος ὄντος, ἔταξαν οἱ Πατρίκιοι πεντήκοντα καὶ ἑκατὸν ὄντων αὐτῶν ἐν μέρει ἕκαστον τοῖς βασιλικοῖς παρασήμοις κοσμούμενον θύειν τε τοῖς θεοῖς τὰ νενομισμένα, καὶ χρηματίζειν, ἓξ μὲν ὥρας τῆς νυκτὸς ἓξ δὲ τῆς ἡμέρας, Κυρίνῳ καὶ Τατίῳ. καὶ γὰρ ἡ διανομὴ τῶν καιρῶν ἑκατέρῳ πρὸς ἰσότητα καλῶς ἔχειν ἐδόκει τοῖς ἄρχουσι, καὶ πρὸς τὸν δῆμον ἡ μεταβολὴ τῆς ἐξουσίας ἀφαιρεῖν τὸν φθόνον, ὁρῶντα τῆς αὐτῆς ἡμέρας καὶ νυκτὸς τὸν αὐτὸν ἰδιώτην ἐκ βασιλέως γινόμενον . . τὸ δὲ σχῆμα τοῦτο τῆς ἀρχῆς μεσοβασιλείαν Ῥωμαῖοι καλοῦσι.

In this representation of the nature of the first interregnum, especially if it was intended as the type or exemplar of the same thing in after times, Plutarch would undoubtedly be singular. On this principle however each interrex must have reigned only twelve hours, six by day and six by night; and there must have been two every twenty-four hours*: so that, if the number of interreges was just equal to that of the patricians, as assumed by him also, viz. 150[*], and each of them was king in his turn once at least before the appointment of a successor to Romulus; the cycle of interregna must have been completed in 75 days, and no more.

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* We are much inclined to suspect that this peculiar idea of the first interregnum at Rome was borrowed by Plutarch from a certain representation of the Etrurians relating to those Gods of theirs, whom they called Consentes; which we may perhaps have occasion to explain hereafter.

[w] Numa, ii.: cf. Zonaras, vii. 5. 321 A, who gives just the same account, without mentioning his authority for it.

Dionysius' account of the interregnum is as follows[x]: Τῷ *δ' ἑξῆς ἐνιαυτῷ βασιλεὺς μὲν οὐδεὶς ἀπεδείχθη* Ῥωμαίων, *ἀρχὴ δέ τις ἣν καλοῦσι μεσοβασίλειον ἐπεμελεῖτο τῶν κοινῶν, τοιόνδέ τινα τρόπον ἀποδεικνυμένη. τῶν* Πατρικίων *οἱ καταγραφέντες εἰς τὴν βουλὴν ὑπὸ* Ῥωμύλου, *διακόσιοι τὸν ἀριθμὸν ὄντες ὥσπερ ἔφην*[y], *διενεμέθησαν εἰς δεκάδας· ἔπειτα διακληρωσάμενοι τοῖς λαχοῦσι δέκα πρώτοις ἀπέδωκαν ἄρχειν τῆς πόλεως τὴν αὐτοκράτορα ἀρχήν. ἐκεῖνοι δ' οὐχ ἅμα πάντες ἐβασίλευον, ἀλλ' ἐκ διαδοχῆς ἡμέρας πέντε ἕκαστος, ἐν αἷς τάς τε ῥάβδους εἶχε καὶ τὰ λοιπὰ τῆς βασιλικῆς ἐξουσίας σύμβολα. παρεδίδου δ' ὁ πρῶτος ἄρξας τῷ δευτέρῳ*

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[*] That Plutarch had some foundation for this supposition appears from Dionysius[y]: yet, (Romulus, xiii. and xx,) he himself supposes the number originally 100, and at the junction of the Sabines 100 more. On which principle it must have been 200 at the death of Romulus.

The original number is very uniformly represented as 100.

> Buccina cogebat priscos in verba Quirites.
> Centum illi in prato sæpe senatus erant.
> Propertius, iv. 1. 13.

Cf. Festus, iii. 74. 10 Centuriatus: xiv. 327. 13 Patres: xvii. 496. 12 Senatores: also, xv. 414. 21–24 Qui Patres: 164 added De Plebe, by the consul P. Valerius, to make up the number of 300. Cf. Livy, ii. 1, who supposes them to have been made up to that number by Brutus.

The Patrician badge or insigne, worn on the boot or shoe, was the letter C, or lunar crescent.

> Felix et sapiens et nobilis et generosus
> Adpositam nigræ lunam subtexit alutæ.
> Juvenal, vii. 191: cf. 186. 189.

Cf. Plutarch, Quæstiones Romanæ, lxxvi.: ci.: the Anthologia Græca, iii. p. 16. l. 26: Marcellus of Side: Philostratus, Vitæ Sophistarum, ii. 554 B. Herodes. This is often explained as if it was meant of the first letter in *Centum;* and so was intended to be a memorial of their original number. Cf. Zonaras, vii. 9. 328 A—B: Lydus, De Mensibus, i. 19. 10. l. 16: Isidore, Origines, xix. 34. 171 H: Patricios calculos Romulus reperit iiii corrigiarum assutaque luna. iis soli patricii utebantur. luna autem in eis non sideris formam sed notam centenarii numeri significabat, quod initio patricii senatores centum fuerint.

[x] ii. 57: cf. 62.

[y] ii. 12, 13: 47.

τὴν ἡγεμονίαν, κἀκεῖνος τῷ τρίτῳ, καὶ τοῦτ᾽ ἐγένετο μέχρι τοῦ τελευταίου. διελθούσης δὲ τοῖς πρώτοις δέκα βασιλεῦσι τῆς πεντηκονθημέρου προθεσμίας, ἕτεροι δέκα τὴν ἀρχὴν παρελάμβανον, καὶ παρ᾽ ἐκείνων αὖθις ἄλλοι.

The stated and regular length of one interregnum down to the latest times[z] was never more or less than this term of *five* days; and there is every reason to believe that the rule ever after observed in this respect was determined by the precedent of the first interregnum; that which ensued on the death of Romulus. If Dionysius was right in the supposed number of senators, 200, the number of bodies of ten into which they could have been distributed was twenty; the reign of one of these decads collectively must have been for 50 days; and that of each member of the decad must have been for five. But how long this went on, and whether the succession of interreigns continued until each member of the senate had been interrex once at least in his turn, he does not say: though he appears to imply it and to intend it to be so understood. He tells us only; Ἔπειτα (that is, at last) *ἔδοξε τῷ δήμῳ παῦσαι τὰς δεκαρχίας, ἀχθομένῳ ταῖς μεταβολαῖς τῶν ἐξουσιῶν.* If such however was his meaning, he could not have supposed that the cycle of interregna was completed in less than 1000 days, (50 × 20, or 200 × 5 days); which would be only 95 days less than three years: and even that, under the circumstances of the case, would be an admissible supposition, as we shall see by and by.

Livy's account of the interregnum is as follows[a]. After mentioning the contention between the original Romans and the Sabines, he continues[a]: Timor deinde Patres incessit ne civitatem sine imperio exercitum sine duce, multarum circa civitatium inritatis animis, vis aliqua externa adoriretur. et esse igitur aliquod caput placebat; et nemo alteri concedere in animum inducebat. ita rem inter se centum Patres, decem decuriis factis singulisque in singulas decurias creatis qui summæ rerum præessent, consociant. decem imperitabant; unus cum insignibus imperii et lictoribus erat. quinque dierum spatio finiebatur imperium, ac per omnes in orbem ibat;

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[z] Livy, ix. 34: Asconius, Præfatio in Orationem pro Milone, p. 150. last line.

[a] i. 17: cf. Eutropius, i. cap. 2: Servius, ad Æneid. vi. 809: Thesaurus Temporum, ad Ann. 1302. Ol. 16. 2.

annuumque intervallum regni fuit. ita ab re, quod nunc quoque tenet nomen, interregnum adpellatum.

The appointment by Romulus of the first hundred Patricians is attested by Livy[b]. The incorporation of the second hundred out of the Sabines is not mentioned by him[c]. Their numbers are supposed to be still one hundred at the death of Romulus[d]. Nor does he recognize any addition to them before the reign of Tarquinius Priscus[e]. Consequently he must have supposed their numbers at the death of Romulus to have been still the same as at first *.

It does not distinctly appear whether he intended this five days' reign of that of each member of the decad individually, or of that of the body collectively. The latter is most probable; because he adds, that the cycle of reigns went through

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* Suidas, Μεσοβασιλεύς: Μετὰ θάνατον Ῥωμύλου ἀναρχίας οὔσης ἐν τῇ Ῥώμῃ ἐνιαυτὸν ὅλον ἡ σύγκλητος τὸ κῦρος τῶν κοινῶν εἶχε πραγμάτων, πενθήμερον ἀρχὴν τοῖς ἐπιφανεστέροις τῶν βουλευτῶν ἐκ διαδοχῆς κατανέμουσα, οὓς μεσοβασιλεῖς ὠνόμασαν. Appian, B. C. i. 98. on occasion of the dictatorship of Sulla: Ῥωμαίοις πάλαι κατ' ἀρετὴν ἦσαν οἱ βασιλεῖς· καὶ ὁπότε τις αὐτῶν ἀποθάνοι βουλευτὴς ἕτερος παρ' ἕτερον ἐπὶ πέντε ἡμέρας ἦρχεν ἕως τινὰ ἄλλον ὁ δῆμος δοκιμάσειε βασιλεύειν. καὶ τόνδε τὸν πενθήμερον ἄρχοντα Ἰντερρῆγα ἐκάλουν· εἴη δ' ἂν Ἐντοσῷδε βασιλεύς. ἀρχαιρέσια δ' ὑπάτων οἱ λήγοντες τῆς ἀρχῆς ἀεὶ προυτίθεσαν. καὶ εἴ ποτε κατὰ συντυχίαν ὕπατος οὐκ εἴη, ὅδε ὁ Ἐντοσῷδε βασιλεὺς καὶ τότε ἐγίγνετο ἐς τὴν τῶν ὑπάτων χειροτονίαν. Historiæ Augustæ SS. Vopiscus, Tacitus Imp. 1: Quod post excessum Romuli novello adhuc Romanæ urbis imperio factum Pontifices, penes quos scribendæ historiæ potestas fuit, in litteras retulerunt, ut interregnum . . . . iniretur; hoc post Aurelianum . . . . sex totis mensibus factum est. multis tamen modis hæc ab illo negotio caussa separanda est. jam primum enim cum interregnum initum est post Romulum, interreges tamen facti sunt, totusque ille annus per quinos et quaternos dies sive ternos centum senatoribus deputatus est, ita ut qui valerent interreges essent singuli dumtaxat. quare factum est ut et plures annos interregnum iniretur ne aliquis sub æquali dignitate Romani expers remaneret imperii. huc accedit quod etiam sub consulibus tribunisque militaribus . . . siquando interregnum initum est interreges fuerunt. nec unquam ita vacua fuit hoc nomine Romana respublica ut nullus interrex biduo saltem triduove crearetur. video mihi posse objici curules magistratus apud majores nostros quadriennium in republica non fuisse. sed erant tribuni plebis cum tribunicia potestate quæ pars maxima regalis imperii est. tamen non est proditum interreges eo tempore non fuisse.

[b] i. 8: cf. Eutropius, i. cap. 2: Vell. Pat. i. 8.

[c] i. 13.

[d] i. 17.

[e] i. 35: cf. ii. 1. Also, Dionysius, iii. 67.

the entire body; and that the sum total of reigns collectively was a year. We must therefore suppose him to have meant the entire body of patricians; every ten of whom reigned five days. On this principle the cycle would be completed in 50 days; after which it must have begun again: so that in one year of 354 days, there must have been seven cycles of this kind; and in one of 304, there must have been six. On the other supposition, the cycle of patricians could not have been completed in less than 100 × 5, or 500 days; and that would have been much more than the term of a year.

There is consequently much difference of representation in the accounts of the interval which was suffered to elapse between the death of Romulus and the accession of Numa. And among these accounts, to judge from the rule of the interregnums in later times, Dionysius' is probably more correct in supposing each interrex a single person, than Livy's in supposing the interrex for the time being a body of ten. Dionysius too is undoubtedly more correct in supposing the number of senators at this time 200, than Livy in still confining it to 100. But on the other hand Livy may be more in the right in restricting the interregnum to one half of this number, the first body of patricians, the original senate of Romulus. And as both he and Dionysius are agreed that whether one or more at a time the interreges reigned five days each; and they are confirmed in that respect by the rule and practice of subsequent times; the probability is that the entire length of the time taken up by successive interregna, until they had made the cycle of the Patricians once at least, may be most truly represented at 100 × 5 or 500 days.

Howsoever soon then after the death of Romulus, this succession might have begun to bear date, and even though it had actually begun on the very day after his death, May 27 B. C. 715; still it could not have been completed for the first time before October 8 B. C. 714, the 501st day from the day of the death of Romulus May 26 B. C. 715. But before we began to calculate the length of the interregnum itself, we should be bound to take into account the probable interval of time occupied by the dissensions and disputes which preceded it; for it is agreed upon all hands that there were such disputes, and there is every reason to conclude that they took up some time; that they had been going on a good while before this temporary expedient of the interregnum was adopted. One or two months are all which we want, to advance the earliest possible date of the election of Numa Pompilius from the middle of October B. C. 714 to the end of that year at least.

On the whole then it does not appear that the appointment of Numa could be assumed to have taken place, under any circumstances, before the end of B. C. 714; and it might have done so at the beginning of B. C. 713. The date, which both Plutarch[f] and Dionysius[g] actually assign it, is Ol. 16. 3. B. C. 714—713. The latter adds that he was under 40 years of age at the time, though not far from it: Τετταρακονταετίας οὐ πολὺ ἀπεῖχε. Plutarch[h] supposes him to have been in his 40th year. If he was born on the day of the Foundation, or about it, B. C. 750, he must have been 36 years old complete, on or about the Palilia, B. C. 714; and nearly 37 complete at the time which we are assuming as the probable date of his election, the beginning of B. C. 713.

SECTION VII.—*On the epoch of the Calendar of Numa.*

i. *In terms of the year of the Æra Vulgaris.*

The determination of the most probable date of the beginning of the reign of Numa, as we have already observed, is a necessary preliminary to that of the epoch of his correction of the calendar. According to Livy[i] the first act of his reign was this correction; Omnium primum ad cursum lunæ in duodecim menses describit annum: and though this statement cannot be understood without some qualification, (for it appears that other things were done by him, even prior to this, which would take up time,) it may be inferred from it that the correction of the calendar must have been one of the first acts of his reign.

But from the nature of the case an undertaking like that of the reformation of the calendar though begun in one year could not be carried into effect before the next at the earliest. We may judge of what was likely to be the case at Rome in this instance from the analogy of the correction of Solon at

[f] Numa, i. [g] ii. 58. [h] Numa, v. [i] i. 19.

Athens. That was digested and prepared in the year of his archonship, B. C. 593; but was published and brought into use in B. C. 592. On the same principle Numa's calendar might be constructed and made ready even in the first year of his reign, B. C. 713: but it could not be made public and brought into operation at the earliest before B. C. 712. The *epoch* of a correction of this kind is the actual year in which it came into use. If we are right then in the conclusion at which we have arrived, that the earliest admissible date of the accession of Numa must have been B. C. 713; we cannot be wrong in concluding also that the earliest date of the actual publication of his correction of the calendar and of the change of style, (howsoever speedily after his election it might have been taken in hand,) must have been B. C. 712.

ii. *In terms of the day. Probability or improbability* a priori *that the first day in the Calendar of Numa would be the first of the corresponding year in the Calendar of Romulus.*

On this question of the day from which the calendar of Numa, as purposely substituted for that of Romulus, might be supposed most likely to have borne date, the most natural presumption at first sight would seem to be this: That the epoch of *his* calendar would be taken if possible from that of Romulus for the time being; that the new style, if it was practicable, would take up and continue the old; that the change in the reckoning of civil time, which was contemplated by his correction, would be carried into effect with as little offence to the prescriptive rights of the old calendar, and to the prejudice existing in its favour, as possible. And we shall probably find hereafter that this very natural presumption *a priori* of what was likely to be done in a case of this kind is confirmed by the matter of fact, or by that which was actually done; as far at least as the nature of the case allowed of it.

For if it is implied in this presumption that the epoch of the correction of Numa was likely to be taken absolutely from that of the calendar of Romulus, or that the very first day of the new style would be the first of the old for the time being; a little reflection will convince us that that could never have been contemplated, and under the circumstances of the case could not have been possible. The first day in the year of Romulus was the first of Martius: the first in that of Numa was the first of Januarius. It was not possible therefore for the first day in the latter, in the first instance of all, to have been the first day in the former also, unless the Januarius of Numa had been substituted in the place of the Martius of Romulus; and testimony as we have seen is uniform that Januarius was *added* to the year of Romulus, not *substituted for* any one of its months, and that Januarius was always the *first* month in the calendar of Numa, and Martius was always the *second*.

It was impossible then for the Kalends of January in the first year of Numa to have coincided under any circumstances with the Kalends of March in the corresponding year of Romulus; if Januarius in the former was to be a different thing from Martius in the latter, and yet the Martius of the latter was to enter into the former also. Still less possible must that have been under the actual circumstances of the case. The first day of the Martius of Romulus immediately before the correction of Numa was falling on July 20 B.C. 713: and immediately after it, on May 20 B.C. 712. If the Januarius of Numa had been substituted for the Martius of Romulus of B.C. 713, it must have borne date July 20; if prefixed to it, it must have borne date June 21: and had it been substituted for the Martius of B.C. 712 it must have borne date May 20; had it been prefixed to it, it must have borne date April 21. The site of the Januarius of Numa in the natural year is fixed, not only by tradition and testimony but by the internal evidence of the calendar itself, and by a variety of feasts and observances attached to this month. Every thing of that kind conspires to restrict it to the winter quarter of the year, or at least to the early spring. It is impossible that the Januarius of Numa could ever have been regarded as a month of the summer. The kalends of the Januarius of Numa then and the kalends of the Martius of Romulus could not have coincided under any circumstances; much less under the actual circumstances of B.C. 713 or B.C. 712. The utmost degree of coincidence between the new calendar and the old, which could reasonably be expected *a priori*, would be *this*: that possibly the first Kalends of

January in the calendar of Numa might be found to have borne date on the first of some month in the current Nundinal year of Romulus, though not of the month of Martius. *That* coincidence under the circumstances of the case was possible: and we shall perhaps see proof hereafter that it was actually the case.

SECTION VIII.—*Derivation of the Correction of Numa from the Primitive Equable year; and of the Epoch of his Calendar from the Thoth of the Primitive year, B. C.* 712.

It has been shewn that the year of Romulus, to which we have agreed to give the name of the Nundinal, was ultimately derived from the Primitive equable year; and that this Primitive year, which was the only form of the civil year as yet in use in Italy before the introduction of the Nundinal correction, was not superseded even by that correction. The very existence of the Nundinal year from a certain time downwards is one of the most decisive arguments of the continued existence of the Primitive equable year simultaneously with it. We need not insist on the inherent defectiveness of this peculiar form of the civil year, as a measure of annual time for public or private purposes, and much more as a measure of the seasons, and as the representative of the natural year; or on the antecedent improbability that the Primitive equable year the most perfect measure of natural annual in natural noctidiurnal time could ever have been supplanted by a year so different from it, and so defective in the same respects in comparison of it, as the Nundinal. The relations which we have established between these two forms of the civil year, the mode in which the one was derived from the other originally, and the manner in which it was necessarily to be referred to it as its proper standard ever after; these considerations are demonstrative that the Nundinal correction itself was never intended to be independent of the Primitive equable year even when it appeared to have been substituted for it. The Equable year was still the principal, the Nundinal was merely the subordinate or secondary, form of one and the same thing perpetually. The relations of origination were never lost sight of in the administration of the

Nundinal correction. It was derived from the Primitive year, and it was referred to it ever after. The Nundinal year could not be any where in use without implying the coexistence of the Primitive. We hope to see proofs at least hereafter that this must have been the case at Cures, the birth place of Numa Pompilius; and that, though Cures had its Nundinal year even in his time, it had not ceased even in his time also to recognize the Primitive year.

Macrobius, speaking of Janus and of the different opinions entertained about him, observes; Inde et simulacrum ejus plerumque fingitur manu dextera trecentorum et sinistra sexaginta et quinque numerum retinens, ad demonstrandam anni dimensionem, quæ præcipua est solis potestas[k]. And that he is here describing a figure of Janus, and a certain configuration of the hands and the fingers in particular, which was supposed to have been first given to them by Numa, and to have been handed down traditionally from his time as the proper mode of representing the Janus of antiquity, appears from Pliny[l]: Præterea Janus Geminus a Numa rege dicatus, qui pacis bellique argumento colitur, digitis ita figuratis ut, trecentorum quinquaginta quinque dierum nota, per significationem anni temporis et ævi se deum indicaret. Whether the original reading of the text in this instance was quinquaginta quinque, or sexaginta quinque, at first sight may be doubtful. The testimony of Macrobius just quoted would determine it in favour of the latter. Harduin on the authority of what he terms the probatissimi codices retains the reading of 355; but he admits notwithstanding the existence of the various reading of 365.

Nor can there be any doubt in our opinion that 365 is the true reading. It is the only one consistent with the numbers in Macrobius, and also with other descriptions of the same kind of representation of Janus, which are upon record. Lydus thus speaks of Janus[m]: *Καὶ οἱ μὲν δίμορφον αὐτὸν μυθολογοῦσι, νῦν μὲν κλεῖς τῇ δεξιᾷ φέροντα ὡσανεὶ θυρεὸν, νῦν δὲ τῇ μὲν δεξιᾷ τριακοσίας τῇ δὲ ἑτέρᾳ ἑξήκοντα πέντε ψήφους ἀριθμοῦντα, ὡσπερεὶ τὸν ἐνιαυτόν· ἔνθεν καὶ τετράμορφον ἀπὸ τῶν τεσσάρων* τροπῶν*. καὶ τοιοῦτον αὐτοῦ ἄγαλμα ἐν τῷ φόρῳ τῷ Νερβᾶ ἔτι καὶ νῦν λέγεται σεσωσμένον. In like manner Suidas[n]: Ἄγαλμα τετράμορφον διὰ τὰς τέσσαρας τροπάς· οἱ δὲ πλάττουσιν αὐτὸν ἐν τῇ δεξιᾷ χειρὶ κλεῖδα κατέχοντα, ὡς ἀρχὴν τοῦ χρόνου καὶ ἄνοιξιν τοῦ ἐνιαυτοῦ καὶ θυραῖον· ἕτεροι δὲ τῇ δεξιᾷ τʹ τῇ δὲ ἀριστερᾷ ξεʹ κατέχοντα, ὡσπὲρ τὸν ἐνιαυτόν. ὅθεν καὶ ὁ Λογγῖνος Αἰωνοάριον αὐτὸν ἑρμηνεῦσαι βιάζεται, ὡσανεὶ αἰῶνος πατέρα. And a statue like this was still to be seen at Constantinople in Codinus' time[o].

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[k] Saturnalia, i. 9. 237.

[l] H. N. xxxiv. 16. 226. Cf. Alexander ab Alexandro: Genialium Dier. i. 14.

[m] De Mensibus, iv. i. 51. l. 5.

In all these instances the number supposed to have been represented by the peculiar configuration of the fingers of this statue, according to the ancient mode of counting by the fingers†, is stated at 365. There is consequently every reason to conclude that it could scarcely have been otherwise in the passage from Pliny, notwithstanding the authority of Harduin's codices probatissimi. It is easy to account for the corruption of 365 into 355; because the Roman year from the time of Numa down to the Julian correction was never known nor suspected to have consisted of more than 355 days in general: and it was natural to refer this representation of a year of some kind, in such a figure as that of the Janus of Numa, to his own year, the year of his own calendar, a year of 355 days only.

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* Servius, ad Æn. vii. 607. Sunt geminæ belli portæ—Sacrarium hoc Numa Pompilius fecerat circa imum Argiletum juxta theatrum Marcelli: quod fuit in duobus brevissimis templis: duobus autem propter Janum bifrontem. postea captis Faliscis civitate Tusciæ inventum est simulacrum Jani cum frontibus quatuor. unde quod Numa instituerat translatum est ad Forum transitorium, et quatuor portarum unum templum est institutum.

The best description of the temple and the image of Janus is given by Procopius; De Bello Gotthico, i. 25. 122. 8.

Τότε καὶ τοῦ Ἰάνου νεὼ τὰς θύρας τῶν τινες Ῥωμαίων βιασάμενοι ἀνακλῖναι λάθρα ἐπείρασαν. ὁ δὲ Ἴανος οὗτος πρῶτος μὲν ἦν τῶν ἀρχαίων θεῶν οὓς δὴ Ῥωμαῖοι γλώσσῃ τῇ σφετέρᾳ Πένητας ἐκάλουν· ἔχει δὲ τὸν νεὼν ἐν τῇ ἀγορᾷ πρὸ τοῦ βουλευτηρίου ὀλίγον ὑπερβάντι τὰ τρία φᾶτα· οὕτω γὰρ Ῥωμαῖοι τὰς μοίρας νενομίκασι καλεῖν. ὁ δὲ νεὼς ἅπας χαλκοῦς ἐν τετραγώνῳ σχήματι ἕστηκε τοσοῦτος μὲν ὅσον ἄγαλμα τοῦ Ἰάνου σκέπειν. ἔστι δὲ χαλκοῦν οὐχ ἧσσον ἢ πηχῶν πέντε τὸ ἄγαλμα τοῦτο, τὰ μὲν ἄλλα πάντα ἐμφερὲς ἀνθρώπῳ, διπρόσωπον δὲ τὴν κεφαλὴν ἔχον, καὶ τοῦ προσώπου θάτερον μὲν πρὸς ἀνίσχοντα τὸ δὲ ἕτερον πρὸς δύνοντα ἥλιον τέτραπται. θύραι τε χαλκαῖ ἐφ' ἑκατέρῳ προσώπῳ εἰσὶν, ἃς δὴ ἐν μὲν εἰρήνῃ καὶ ἀγαθοῖς ἐπιτίθεσθαι τὸ παλαιὸν Ῥωμαῖοι ἐνόμιζον πολέμου δέ σφισιν ὄντος ἀνεῷχθαι. Cf. Plutarch, Numa, xx.

[n] Ἰανουάριος. Cf. in Αἰωνοάριος.

[o] Περὶ ἀγαλμάτων, or Descriptio Constantinopolis. Cf. Augustin, De Civitate, vii. 4–8.

† Cf. our Dissertations on the Principles and Arrangement of an Harmony of the Gospels, iv. 536 note. App. Diss. xxvii.: also Alexander ab Alexandro, Geniales Dies, i. 14.

We have been so much the more particular in endeavouring to ascertain the true account of this emblematical description of Janus, because, as traced up to Numa himself and as the traditional mode of representing Numa's own Janus, it proves incontestably that even when contriving and publishing a civil calendar, adapted to certain assumptions of the nature and constitution of the lunar year, which required certain corresponding assumptions of the nature and length of the solar year, Numa was well aware of the only true year of that kind which could be considered the constitution and appointment of nature, next to the natural solar or tropical year; viz. the Primitive equable year of 365 days, the perpetual measure of the natural tropical year itself in integral days and nights.

With respect then to the question which we are considering, that of the Epoch of the correction of Numa, in the sense of the day on which it actually took its rise; it is an obvious inference from these premises that, though it could not possibly have borne date from the first of Martius in the Nundinal year concurrent with that of its own publication, it might and very probably would be found to have borne date from the Thoth of this Primitive year, older than Numa, older than the Nundinal year of Romulus, and the ultimate origin of the Nundinal year itself, and never supplanted or superseded by it: a year known also to Numa, and recognized by him, in a very significant manner as the abstract type of the natural solar year in the sense of the civil year, and as more closely associated with his own Janus than any other form of the year besides. The year of the accession of Numa then having been probably determined to B. C. 713, and the year of the actual publication of his correction of the calendar to B. C. 712; we have next to consider on what day, B. C. 712, the primitive Thoth was falling.

Our General Tables shew that B. C. 712 and A. M. 3293 (both dated from January 1 at midnight) corresponded to Æra Cyclica 3295; and that the Primitive Thoth at midnight Æra Cyclica 3295 was falling on February 17 at midnight B.C. 712. It appears from them also that Æra Cyclica 3295 corresponded to Æra Nab. 36; and that the Thoth of the Cyclical year in that instance was the same with the Thoth of the corresponding year of the Æra of Nabonassar; and each alike answered to February 17 B.C. 712. And that too was a coincidence far from unimportant; by virtue of which the epoch of the correction of Numa having been fixed to the epoch of the Æra Cyclica for the time being must have been fixed to that of the Æra of Nabonassar for the time being also: and from this time forward, if referrible to the equable year at all, it must be so to that year in the form of the year of Nabonassar, not in that of the Cyclical. Its proper standard of reference ever after must be the Thoth of the Æra of Nabonassar, not that of the Æra Cyclica[p].

The result of these premises however is that if the calendar of Numa was set at par with the first of Thoth, whether of the Æra Cyclica 3295 or of the Æra of Nab. 36, it was set at par with February 17 in the proleptic Julian year B.C. 712. February 17 then, in the Julian year B.C. 712, at midnight, (or at any other period of the Noctidiurnal cycle, from Feb. 16 at 18 hours to Feb. 17 at 18 hours, which might be considered the most proper in the first instance of all,) on this principle was the Julian epoch of the correction of Numa, which took its rise on the Kalends of January U.C. 42 of the Varronian reckoning Ex Palilibus, U.C. 41 of the Capitoline, U.C. 40 of the Catonian, U.C. 39 of the Polybian. And that this day was actually its epoch, and the date of the Kalends of January in the first year of the first cycle of the calendar of Numa, is capable of being confirmed by a variety of particular proofs, which we must be content with stating summarily at present; each of them being sufficiently important and sufficiently extensive also in itself to constitute the proper subject of a distinct part of our work.

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[p] Cf. our Fasti Catholici, i. 617—673. Diss. viii. ch ii. and iii.

SECTION IX.—*General statement of the proofs by which the Epoch of the Calendar of Numa, Feb.* 17 B. C. 712, *admits of being verified.*

i. By the epoch of the Decemviral calendar, directly deducible from this of the calendar of Numa.

ii. By the epoch of the Irregular calendar, regularly deducible from that of the Decemviral calendar, and through that from this of the calendar of Numa.

iii. By the epoch of the Julian correction, regularly deducible from that of the Irregular calendar, and through that from this of the calendar of Numa.

iv. By the cycle of Intercalary years in the regular calendar both that of Numa and that of the Decemvirs; exemplified and substantiated by actual years of that kind.

v. By the cycle of the Nundinal day, from the first Nundinal day in the calendar of Numa to the first in the Julian correction; confirmed and illustrated in like manner by actual instances.

vi. By every date both in the regular and in the irregular calendar, which can be certainly or probably determined in terms of the proleptical Julian year, from the epoch of the calendar of Numa to that of the Julian correction; by historical data of every kind whether directly supplied by testimony, or circumstantially to be collected; by dates of eclipses solar or lunar; by dates of solar ingresses; by dates of new or of full moons, which are any where on record in Roman history, or are in any manner to be collected from it. There is nothing of this kind from B. C. 712 to B. C. 45 which is not found to bear witness to the truth of our Roman Calendar.

SECTION X.—*Confirmation of the derivation of the Epoch of the Calendar of Numa from the Primitive year, by two distinct proofs,* i. *The date of the Palilia in the first year of the first cycle of Numa.*

There are however two arguments, distinct from any of the above, of the derivation of the correction of Numa from the Primitive equable year, which may very properly be adduced at present. One of these is the date of the Palilia in the first year of the first cycle of Numa: the other is the seat of the Terminalia in his calendar.

i. The date of the Palilia or of the Foundation of Rome, and the birthday of Numa, according to the tradition considered in the preceding Dissertation[q], were the same. It was shewed upon that occasion that the date of the Palilia as that of the Urbis Natalis, or the date of the Urbis Natalis as that of the Palilia, was never reckoned to be any day in the calendar but the xi Kalendas Maias. We saw reason to conclude on the same occasion that the birthday of Numa must always have been reckoned in terms of the Primitive year; and that the ultimate origin of the tradition in question most probably was the fact that the birthday of Numa, and the calendar date of the Palilia in the first year of the first cycle of his own calendar, were the same day; and that he himself was born on the same day in the Primitive year B. C. 750 which was coinciding with the xi Kal. Maias in his own calendar B. C. 712; i. e. Athyr 20, the 20th of the third primitive month. To account for the origin of this tradition then, relative to the birthday of Numa and the day of the Foundation, we have only to shew that the 20th of Athyr, Nab. 36, and the xi Kal. Maias, U. C. 42 of Varro, in the first year of the first cycle of Numa were the same.

Calendar of Numa.		*Primitive Equable Calendar.*	
Cycle i. 1. B. C. 712		Æra Cycl. 3295. Nab. 36.	
i Kal. Januariæ	Feb. 17 mid.	i Thoth	Feb. 17 mid.
ii — Martiæ	March 18 —	ii Phaophi	March 19 —
iii — Apriles	April 18 —	iii Athyr	April 18 —
xi Kal. Maias	May 7 mid.	Athyr 20	May 7 mid.

ii. *The seat of the Terminalia in the Calendar of Numa.*

The Terminalia or feast of Terminus in the calendar of Numa was fixed to the 23d of February[s]. The name itself implies that it must have been intended by this feast and by this designation thereof to mark an end of something; which Ovid understood of that of the liturgic or ritual year.

> Tu quoque sacrorum Termine! finis eras[t]—

and Varro of that of the civil year[u]: Terminalia; quod is dies anni extremus constitutus: though he was aware that there were five days remaining, even after the Terminalia, and in the same month; which made up the complement of that month and the full measure of the year: Duodecimus enim mensis Februarius: et cum interkalatur inferiores quinque dies duodecimo demuntur mense.

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[q] Supra ch. ii. Sect. ii. iv. page 106. 108.

[s] Ovid, Fasti, ii. 639—684.

[t] Ibid. 50.

[u] De Lingua Latina, v. 55.

Neither of these explanations is satisfactory. With regard to Ovid's, it appears even from his own Fasti that the Terminalia in his time was not the close of the ritual year even as supposed to end in February; if the Regifugium at least on the 24th[w], and the Equiria in Campo Martio on the 27th[x], both made part of that year*. As to Varro's, even if true, it would be applicable only to the intercalary years of the calendar: nor can we comprehend how, even in that case, to detach the last five days from February and to attach them to the intercalary month could have the effect of making the 23d of February the end of the year: for the intercalary month made part of the year, as much as any other in the calendar.

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* Cf. Ausonius, De Feriis Romanis, 385. verse 27.

> Nunc etiam veteres celebrantur Equiria ludi:
> Prima hæc Romanus nomina circus habet.

Tertullian, iv. 113. De Spectaculis, 5: Dehinc Equiria Marti Romulus dixit: which ascribes the institution of these games to Romulus. Servius seems to have been of the same opinion; from his dating the Consualia of Romulus in March: ad Æn. viii. 636.

The Equiria being attached to the iii Kal. Martias in the calendar of Numa or that of the Decemvirs, February 27 Roman; that was a time of the year at which the Tiber was very likely to be overflowing its banks, and laying the Campus Martius under water. In this case, the Equiria were celebrated on the Mons Cœlius. Festus, xi. 228. 7: Martialis Campus in Cœlio Monte dicitur, quod in eo Equiria solebant fieri siquando aquæ Tiberis Campum Martium occupassent.

Ovid has the date of the Equiria in March, distinct from those of February, on the 14th of March, Pridie Idus. (Cf. the Maffæan and the Vatican Kalendar also).

> Altera gramineo spectabis Equiria campo
> Quem Tiberis curvis in latus urget aquis.
> Qui tamen ejecta si forte tenebitur unda
> Cœlius accipiet pulverulentus equos.
>
> Fasti, iii. 518.

And this too no doubt was liable to happen not later in the year than the middle of March.

[w] Fasti, ii. 685. Kal. Maffæan. apud Foggini.

[x] Ibid. 857.

The truth is, the seat of the Terminalia in the calendar of Numa, and the seeming termination of the year implied thereby five days before it actually came to an end, can be explained by nothing but the connection of his correction in its origin with the Primitive equable year; but by that it is explained at once.

For as the kalends of January, in the first year of the first cycle of Numa, and the Thoth of Nab. 36 both fell on February 17 B. C. 712, the epagomenæ of the primitive year must have borne date February 12, and the 30th of the primitive Mesore February 11, the same year; the former five days before the kalends of January in this first year of the first cycle of Numa, the latter six. And these are the distances between the Terminalia, and the first of the last five days in the month of February, in the common years of the cycle of Numa, and the kalends of his January; the former invariably six days, the latter five.

It appears to us therefore the most probable of all conclusions, and almost morally certain, that the Terminalia of the calendar of Numa were purposely fixed to the sixth day from the end of the year, in order that they might answer to the close of the last full month in the Primitive equable year, the 30th of Mesore; and that five days were purposely reserved in the same month of February even after the Terminalia, in order that they might correspond to the five epagomenæ of the Primitive equable year. And this explanation of the site and of the name of this particular day in his calendar being admitted; we require no other argument of the connection of his correction with the primitive year from the first.

We do not mean to say that in practice, and as actual matter of fact, the coincidence in question could ever be seen to hold good again after B. C. 712; or that the Terminalia of Numa could ever be actually the same with the 30th of the primitive Mesore, or *his* five epagomenæ ever the same with those of the Primitive calendar. Such a coincidence was not possible in any subsequent year of such a cycle as that of Numa, consisting at one time of years of 355 days, at another of years of 377 or 378; while the Primitive year always consisted of one and the same number, 365. And though on the principle of the *reditus retro*, and on the supposition that even the first cycle of Numa was but the continuation *de facto* of a series of cycles of the same kind, it might have been considered capable of holding good just at the time when his correction actually came into existence; yet it would be an objection even to this hypothesis that the *last* year of one of Numa's cycles was not a common year but an intercalary one. The five last days of his Merkedonius under such circumstances might have coincided with the five epagomenæ of the primitive year, but the 23rd of his February would not have coincided with the 30th of the primitive Mesore. The 22nd of his Merkedonius indeed would have done so; but it would not have represented the Terminalia: the date of which in Numa's calendar both in the common and in the intercalary years of the cycle was always the 23rd of February.

But these objections after all are trifling. The *principle* of these arrangements of the calendar of Numa is clear enough; whatsoever might be their operation and effect in practice. The 23rd of his February was as much the close or boundary of *his* year as the 30th of Mesore of the *primitive* year. The five days of his February, remaining after the 23rd, were as much epagomenæ, (supernumerary or complementary days,) in *his* year, as the five appendices of the Primitive year in that. He could not have taken the idea of such arrangements from any thing but the Primitive year, which exhibited so perfect a pattern for his imitation in that respect. And even with regard to the use and application of these five days after his Terminalia, if the truth had been handed down it might have been found to be as Ovid supposed; viz. that Numa's liturgic or ritual year was closed by his Terminalia* in a common year, and by the corresponding day in an intercalary one: and that he did not intend any thing of a serious, much less of a sacred and religious, character to be assigned to these five days at the end of any year in his calendar.

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* It is agreed that the Terminalia in the Roman calendar was an institution of Numa's; and that the ceremony of this day was of his own appointing. Cf. Pliny, H. N. xviii. 2. p. 6: Festus, xviii. 566. 13. Termino . . Denique Numa Pompilius statuit eum qui Terminum exarasset et ipsum et boves sacras esse. Dionysius Hal. ii. 74: Κελεύσας γὰρ ἑκάστῳ περι-

CHAPTER II.

On the structure and details of the Calendar of Numa.

SECTION I.—*The mean annual lunar and solar standard of Numa.*

We shall now pass to the construction and details of the calendar of Numa: under which head in general it will be necessary to consider a variety of important and interesting particulars.

i. It appears from the analysis of the cycle of Numa itself that the annual lunar standard for civil purposes assumed by him was 355 days. Consequently one day more than the annual lunar standard of the octaëteric cycle, 354 days. His mean annual solar standard was proportionally greater also, viz. 366 days 6 hours; while that of the octaëteris is 365 days 6 hours.

Now a mean lunar year of 355 days bears the same proportion to a mean solar one of 366 days 6 hours, as a mean lunar year of 354 days to a mean solar one of 365 days 6 hours. Either then there was a double error involved in these assumptions, yet the one so critically accommodated to the other that both together were competent to lay the foundation of a proper lunæsolar cycle; or each of these assumptions was deliberately made, whether the reasons of the as-

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γράψασθαι τὴν ἑαυτοῦ κτῆσιν, καὶ στῆσαι λίθους ἐπὶ τοῖς ὁρίοις, ἱεροὺς ἀπέδειξεν ὁρίου Διὸς τοὺς λίθους, καὶ θυσίας ἔταξεν αὐτοῖς ἐπιτελεῖν ἅπαντας ἡμέρᾳ τακτῇ καθ' ἕκαστον ἐνιαυτὸν ἐπὶ τὸν τόπον συνερχομένους, ἑορτὴν ἐν ταῖς πάνυ τιμίαις καὶ τὴν τῶν ὁρίων θεῶν καταστησάμενος. ταύτην Ῥωμαῖοι Τερμινάλια καλοῦσιν ἀπὸ τῶν Τερμόνων· καὶ τοὺς ὅρους αὐτοὺς ἑνὸς ἀλλαγῇ γράμματος παρὰ τὴν ἡμετέραν διάλεκτον ἐκφέροντες Τέρμινας προσαγορεύουσιν. Cf. Plutarch, Numa, xvi. Quæstiones Romanæ, xv: Termo for Terminus occurred in Ennius: see Festus, xviii. 566. 19. Termonem.

sumption appear or not: and one was adapted to the other accordingly. We ought not therefore to infer too hastily, from the mere fact of the hypotheses on which his calendar appears to have been constructed, that the true mean length of the lunar year, or the true mean length of the solar, in conformity at least to the principles of the octaëteric cycle, could not have been known to Numa; but we should rather suspend our judgment in reference to this question, until the entire system and œconomy of his calendar has been laid open, and we have been enabled thereby to see in what manner the assumptions and principles which served as its foundation were made to work together, in bringing about the result proposed by every lunæsolar cycle: viz. the readjustment of the lunar and solar momenta one to another, if not every year, yet after a certain number of years.

Macrobius indeed (as we have seen) would make it appear as if Numa's assumed standard of the mean lunar year had been originally the same as the octaëteric, 354 days, but by the addition of one day purposely given to Januarius, In honorem imparis numeri, had been afterwards increased to 355 days. Paullo post Numa in honorem imparis numeri, secretum hoc et ante Pythagoram parturiente natura, unum adjecit diem, quem Januario dedit, ut tam in anno quam in mensibus singulis præter unum Februarium impar numerus servaretur[a]. But Censorinus[b] has no such assertion of any after correction of the length of his year; nor is it any where else to be met with. It is in fact confuted by its own improbability; supposing as it does that the calendar of Numa had been already framed and proposed on *one* principle, yet was immediately afterwards remodelled and republished on another. It is inconsistent also with Macrobius' own account of his cycle as a *whole*, afterwards given; at least if that account held good of it and was applicable to it from the first. But in reality the supposition is purely gratuitous; and is founded on the implicit assumption of a preference in the mind of Numa of the odd to the even number; which, if it actually existed therein, ought to have produced its effect from the first, and ought to have determined the standard of the year of Numa to 355 days not to 354 from the first.

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[a] Saturnalia, i. 13. 263.

[b] De Die Natali, xx.

SECTION II.—*Order and length of the months in the Calendar of Numa. Testimonies.*

ii. The mean annual lunar standard of Numa being 355 days, his mean monthly standard, or the mean length of each of his months supposed to have been equal to one another, must have been the twelfth part of 355 days; i. e. 29 days 14 hours. Consequently, two hours more than the mean standard of the octaëteris, 29 days 12 hours. With regard then to the distribution of twelve lunations, each of such a standard as this, among the twelve civil months of his calendar; the first thing to be considered is the order and length of these months, as handed down by tradition and testimony.

This order and these lengths, in each instance but that of Februarius, (the twelfth month in the calendar of Numa, but the second in the Julian calendar,) might be collected even from the order and lengths of the months in the Julian correction, as actually in use at the present day; for each of these is just the same at present as in the time of Julius Cæsar. And as it is known in what manner the correction of Cæsar was obtained from the calendar previously in use; (i. e. which of the months he retained as he found them, and which he increased in length; and not only what additions he made to the lengths of particular months but also in what part of those months he inserted them;) it is manifest that we should have nothing to do but to reverse this process in each instance, and to take out of the calendar at present the days introduced by Cæsar, and we should get the calendar exactly as it stood before the correction of Cæsar: which calendar so recovered, as we have observed, in all but the place of February would be a facsimile of that which in the first instance proceeded from Numa.

It is better however that the answer to this question of the order and of the lengths of the months in the calendar of Numa should be assigned by the express testimonies of antiquity; which we shall therefore proceed to state.

i. Censorinus proposes in the first place the scheme of the calendar of Romulus; shewing the order and length of its months as follows[c].

i	Martius	xxxi	dierum	vi	Sextilis	xxx	dierum
ii	Aprilis	xxx	..	vii	September	xxx	..
iii	Maius	xxxi	..	viii	October	xxxi	..
iv	Junius	xxx	..	ix	November	xxx	..
v	Quinctilis	xxxi	..	x	December	xxx	..

After which he proceeds: Quorum quatuor majores pleni ceteri sex cavi vocabantur. postea sive a Numa ut ait Fulvius, sive ut Junius a Tarquinio, duodecim facti sunt menses, et dies ccclv; quamvis luna duodecim suis mensibus cccliv dies videatur explere. sed ut unus dies abundaret aut per imprudentiam accidit, aut quod magis credo ea superstitione qua impar numerus plenus et magis faustus habebatur. certe ad annum priorem unus et quinquaginta dies accesserunt; qui quia menses duos non implerent, sex illis cavis mensibus dies sunt singuli detracti, et ad eos additi; factique sunt dies quinquaginta septem: et ex his duo menses, Januarius undetriginta dierum Februarius duodetriginta. atque ita omnes menses pleni et impari dierum numero esse cœperunt, excepto Februario; qui solus cavus et ob hoc ceteris infaustior est habitus.

The six months in the calendar of Romulus, thus designated as cavi, are those in the above scheme each of which has 30 days, Aprilis, Junius, Sextilis, September, November, December. What Censorinus means is that Numa took *one* day away from each of these, leaving the rest as they were; which six days being added to 51, (the difference between a year of 355 days and one of 304,) and making up 57 in all, he divided them between Januarius and Februarius in such a proportion as to give 29 to the former and 28 to the latter. Consequently the length of the months in his calendar, according to Censorinus, whether the order or not, was as follows.

Calendar of Numa, according to Censorinus.

i	Januarius	29	dierum	vii	Sextilis	29	dierum
ii	Martius	31	..	viii	September	29	..
iii	Aprilis	29	..	ix	October	31	..
iv	Maius	31	..	x	November	29	..
v	Junius	29	..	xi	December	29	..
vi	Quinctilis	31	..	xii	Februarius	28	..

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[c] De Die Natali, xx.

ii. Macrobius' account is virtually to the same effect[d]. Januarius igitur, Aprilis, Junius, Sextilis, September, November, December undetricenis censebantur diebus, et quintanas Nonas habebant; ac post Idus in omnibus a. d. septimum decimum Kalendas computabatur. Martius vero, Maius, Quinctilis, et October dies tricenos singulos possidebant. Nonæ in his septimanæ erant; similiterque post Idus decem et septem dies in singulis usque ad sequentes Kalendas putabantur. sed solus Februarius viginti et octo retinuit dies; quasi inferis et deminutio et par numerus conveniret.

This too gives the length of the months of Numa, if not their order, according to Macrobius as follows.

Calendar of Numa, according to Macrobius.

i	Januarius	29	dierum	vii	Sextilis	29	dierum
ii	Martius	31	..	viii	September	29	..
iii	Aprilis	29	..	ix	October	31	..
iv	Maius	31	..	x	November	29	..
v	Junius	29	..	xi	December	29	..
vi	Quinctilis	31	..	xii	Februarius	28	..

iii. Sed cum ratio illa ante Numam a lunæ cursu discreparet, lunari computatione annum peræquarunt; quinquaginta et uno die auctum. ut ergo perficerent xii menses, de sex mensibus superioribus detraxerunt dies singulos, eosque quinquaginta istis et uni diebus adnexuerunt; factique quinquaginta septem divisi sunt in duos menses, quorum alter xxix alter xxviii dies detinebat. sic annus habere quinque atque quinquaginta et trecentos dies cœpit[e]: which is substantially to the same effect as either of the preceding accounts, and especially as that of Censorinus.

SECTION III.—*Remarks on the preceding statements.*

Upon the preceding statements in general we may observe i. That though Censorinus has given the name of *pleni* to all the months in the calendar of Numa but February, and therefore has restricted the sense of *pleni menses* to those of an uneven number of days, whether 29 or 31; yet, all being considered as lunar alike, it is more correct to call the months of 29 days only *cavi*, and those of 31 only *pleni*: the single month of 28 days being included under the denomination of *cavus* also.

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[d] Saturnalia, i. 13. 264.

[e] Solinus, i. §. 37.

ii. It will follow from this distinction that the months in the lunar calendar of Numa also, like those of every lunar calendar in general, and especially like those of the octaëteric in particular, were some *pleni* some *cavi*, according to the usual mode of dividing and distinguishing them in that respect. iii. The *menses cavi*, in the calendar of Numa, like those in the octaëteric calendar also, in the order of succession must have been prior to the *menses pleni**. iv. The *menses cavi* of Numa also, like those of the octaëteris in general, must have been months of 29 days; but his *menses pleni*, unlike those of the octaëteris, must have been months of 31 days. Consequently, while the double lunation or δίμηνον of the octaëteric calendar was one of 59 days, that of Numa's calendar must have been one of 60 days; and, while the standing difference of the *menses pleni* and *menses cavi* in the octaëteric cycle was one day, in that of Numa it must have been two days.

v. While the months in the octaëteric calendar, as *cavi* and *pleni*, alternated regularly from the beginning to the end of the year, those of Numa, as *cavi* and *pleni* also, alternated regularly only for the first six months; alternated indeed, but not in the same order as before, nor regularly even among themselves, for the last six. The reasons of this distinction have never been properly explained, not even by the ancients, much less in modern times; yet they are calculated to throw great light on the principles and assumptions of Numa's correction, and on the truth of the traditionary accounts of the actual constitution of his calendar.

SECTION IV.—*On the rule of the alternation of the* menses cavi *and the* menses pleni *in the year of Numa; and on the reasons on which it was founded.*

Now this peculiar rule of his calendar was ultimately founded on nothing but the *assumed* length of the natural mean lunar standard, represented as above, supposed to be uniform from the beginning to the end of the year, and the *actual* length of the mean civil lunation, not supposed to be uniform from the beginning to the end of the year, but to be *cavus* at one time and *plenus* at another; or, if uniform at all, only for two lunations taken in sequence.

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* Censorinus, De Die Natali, xxii: Minime videntur errasse qui ad lunæ cursum menses civiles accommodarunt, ut in Græcia plerique; apud quos alterni menses (i. e. every other month, consequently the even months) ad tricenos dies sunt facti. majores quoque nostri idem sunt æmulati cum annum dierum ccclv haberent.

The mean natural lunation consisting of whole days and parts of days, but the mean civil lunation, whether *cavus* or *plenus*, consisting of whole days only; it is allowable in every form of the civil lunar year, considered as the substitute for the natural, that the civil *numeniæ* or calendar dates of the new moons should differ within certain limits, sometimes in excess sometimes in defect, from the mean or the true. In the octaëteris indeed this possibility of difference between the civil and the natural months is confined to the *numeniæ* of the *menses pleni;* and consequently as to the single lunation it can affect only every other month. It cannot extend to the *menses cavi*, or have place in the double lunation; because, on the principles of the octaëteris, two civil lunations, one *cavus* the other *plenus*, in sequence must be absolutely and perpetually equal to two mean or true.

But the state of the case was altogether different in a lunar cycle like that of Numa, constructed upon the hypothesis that the mean natural lunar month was uniformly 29 days 14 hours in length, while the mean civil one was to be alternately 29 days and 31 days long; and that the mean natural δίμηνον or double lunation was invariably 59 days 4 hours in length, but the mean civil one, on the other hand, was to be 60 days long. It is manifest that in a calendar so constructed the civil *numeniæ* and the mean could never absolutely coincide except at the beginning of the year; that they might indeed set out in conjunction at first, but that they could not continue to go on together subsequently. The mean must be perpetually anticipating on the civil; and the civil must be constantly getting later and later than the mean. The only question would be To what extent this liability to differ was to be allowed to proceed? and what limits were to be assigned to the anticipation in question? It appears that Numa did propose to assign it some limit; but that, in conformity to the principles and assumptions of his calendar in other respects, he chose to fix this limit to the amount of the difference between one of his *menses pleni* and one of his *menses cavi*, viz. two days. It was allowable in his calendar for the civil *numeniæ* to gain two days on the mean; but not more. Let us then proceed to shew in what manner this principle of limitation will account for the peculiar alternation of his months as *cavi* and *pleni*, or as *pleni* and *cavi*, from the beginning to the end of his year.

i. The first mean natural double lunation of Numa was 59 days four hours long; the first mean civil one was 60 days long. The excess of the latter on the former was consequently 20 hours. The mean new moon of his third month therefore would anticipate 20 hours on the civil. But that was allowable, on the principle which has just been pointed out. The months then, having begun to alternate as *cavi* (or 29 days long) and as *pleni* (or 31 days long), to the end of the first double lunation, might be allowed to do so still beyond it.

ii. The first four mean natural months of Numa would contain 118 days 8 hours; the first four of his civil months would contain 120 days: i. e. one day 16 hours more than the former. The fifth mean new moon of Numa then would anticipate one day 16 hours on the fifth civil. But this too was an allowable discrepancy; for it did not yet amount to the difference between one of his *menses pleni* and one of his *menses cavi*, two entire days. The order of the months therefore, as *cavi* and *pleni*, which had gone on thus far, might still be permitted to go on in the same way for two months more.

iii. The first six mean natural months of Numa would contain 177 days 12 hours: the first six civil months 180 days. The difference would=2 days 12 hours. The seventh natural mean new moon of Numa consequently would anticipate 2 days 12 hours on the seventh civil; and that would be more than could be permitted: because it exceeded the difference of one of his *menses pleni* and one of his *menses cavi* by 12 hours, or half a day. The most natural and obvious method of correcting this excess being the abstraction of a day from the next double lunation in one or other of its component parts; if that could not be done with propriety from the first, which was *cavus* already, it must be done from the second, which otherwise would be *plenus*. The alternation of the months then, as *cavi* and *pleni*, which had begun and gone on without interruption to the end of the third double lunation, would begin to be changed at this point; and the next double lunation, instead of consisting of one hollow and of one full month, like all before it until then, would be found to consist of two hollow months one after the other. This is the true explanation of the first instance of departure from the general rule of alternation observed in the octaëteric calendar, which begins to appear in the calendar of Numa in the seventh and eighth of its months. And this is the true reason why each of these, that is both Sextilis and September, as making up the fourth double lunation in his calendar, was a month of 29 days.

iv. The first eight mean natural months of Numa would contain 236 days 16 hours; the first eight civil months under the circumstances affecting the two last, which have just been explained, would contain 240 – 2 days or 238 days. The excess of the civil over the natural then would be one day eight hours. The ninth mean new moon of Numa consequently would anticipate one day eight hours on the ninth civil. But that was allowable; being less than the difference of one of his *menses pleni* and one of his *menses cavi* in general, either of which could have place in his calendar *pro re nata*. *This* anticipation therefore would require no immediate correction. It might be permitted to stand over for another double month.

The fifth double lunation of Numa then would consist of one full and one hollow month. The question would be only In what order? Whether in the old, of one hollow and of one full month, or in the new, of one full and of one hollow month? Now had the original rule of the alternation been again adopted in the fifth double lunation, it would have entailed *this* anomaly; viz. That three calendar months would have been hollow in sequence, Sextilis, September, and October: and that would have been totally inconsistent with the relation of the civil lunar year to the natural, and with the character and constitution of the civil lunar calendar itself. It could not possibly therefore be thought proper to revert to the old rule of alternation at the beginning of the fifth double lunation. Consequently that must be continued which had been virtually substituted for it in the preceding double month; the second half of which consisted of an hollow month, not of a full one. Such we apprehend is the reason why October, though the ninth month in the calendar of Numa, was nevertheless appointed to be *plenus*, and November, though the tenth, was appointed to be *cavus;* contrary to the rule, with respect to the length of the odd and of the even month respectively, observed in every other instance but the eighth until then.

v. The first ten mean natural months of Numa would contain 295 days 20 hours; the first ten civil months, as hitherto regulated in point of length, would contain $300-2$ or 298 days. The difference would $=2$ days 4 hours. The mean new moon therefore of the eleventh month would anticipate two days four hours on the mean civil; and that would be a greater difference than could be allowed to remain uncorrected. It must therefore be corrected in the course of the next double lunation; but as this was also the last in the calendar, if Numa's mean natural new moon and his mean civil new moon were to coincide at the beginning of the next year as they had done at the beginning of this, not only would provision have to be made in the course of this last double lunation for retrenching the excess of the civil on the natural month already accumulated up to the commencement of it, but also for preventing any further difference of the same kind from this time to the end of the year. Provision would have to be made for restoring the course of mean natural lunar time and mean civil lunar time to the relations of origination in such a combination of one with the other as this; i. e. for bringing about a perfect ἀποκατάστασις of either in terms of the other, in the course of the last double month thus common to both.

Now it is manifest that this could be effected only by abridging one or both of its component parts; and by proportioning the abridgment to the necessity of the case. The measure of this necessity was easy to be ascertained. Numa would have to take into account first the anticipation of the mean natural lunar momenta on the mean civil, which had been accumulated up to the beginning of this double lunation, viz. 2 days, 4 hours; secondly the addition which would be made to it in the course of this double lunation itself, if it went on, consisting of a *mensis cavus* and a *mensis plenus*, as before: which would amount to 20 hours more. On the whole therefore, the amount of the anticipation which would require to be corrected in this last double lunation of the calendar, in order to bring the mean natural and the mean civil measures of the lunar motions respectively to a perfect equality at the end of the year, would be *three* days, and no more. It is self-evident then that the last double lunation of Numa, the sixth from the beginning of his year, instead of consisting of 60 days must consist of 57. By these means his six civil double lunations would coincide absolutely with his six mean or natural; the latter containing 59 × 6 days + 4 × 6 hours, or 354 + 1 day, or 355 days, perpetually; the former, corrected and modified from time to time in the manner which we have explained, containing 60 × 6 days − 2 + 3 or 5 days, that is 355 days also.

The only question would be In what manner these 57 days should be distributed between the two months which composed the last double lunation. It is manifest that being an uneven number they could not be distributed in an equal proportion to each; and, if they were to be distributed unequally, as much more than half of the number as might be assigned to one of those months so much less than half must be assigned to the other. Now, though to have given 31 days to the eleventh month would not have been repugnant to the analogy of the *menses pleni* in every other instance, it would have left the twelfth month only 26; and that would have been decidedly contrary to the analogy of the *menses cavi*. To have assigned the eleventh month 30 days would have been to introduce a new standard of the *mensis plenus*, and would still have left only 27 for the twelfth; which would not have come up to the old standard of the *mensis cavus*. There would be no alternative then except to allow the eleventh month 29 days; agreeably to the standard of the *menses cavi* throughout, and to the rule of the alternation of the *menses cavi* and *menses pleni* at first: in which case the twelfth month could have no more than 28. This appears to have been the true reason why, though October the ninth month in the calendar of Numa was appointed to be *plenus* and November the tenth to be *cavus;* yet December the eleventh month was appointed to be *cavus* also. December however being *cavus,* with 29 days out of 57, (all that still remained in the calendar,) February must be *cavus* also, yet with 28 days only instead of 29.

We see then from this review that it was just as natural, and just as consistent with the principles and assumptions of his calendar, that the months of Numa should be *cavi* and *pleni* respectively as those of the octaëteris: but regularly so only for the first six months, from Januarius to Quinctilis, irregularly so for the last six, from Sextilis to Februarius. We see too that it was just as natural in such a calendar that Februarius at the end of the year should have 28 days as Januarius at the beginning 29. Consequently that no just inference could be drawn from this last fact in particular in favour of Numa's supposed preference of the odd to the even number for the use of his own calendar; or that, if any such inference is deducible from the structure of his calendar itself, it is not from this particular characteristic of it, the number of days in Februarius, as the twelfth month, compared with that in Januarius, as the first, but from the number of days in all his months but the last, the menses pleni and the menses cavi alike: which is an odd number and not an even one throughout. And yet we shall probably see reason hereafter to conclude that even this characteristic of his calendar, general as it is, was the effect of accident more than of design.

With respect to the length of February; it is clear that, every thing in the calendar being digested and administered up to that month as we have explained it, it could not have been different from what it appears to have actually been. Three days must be abstracted from the length of one of the months which made up the last double lunation; and they were in reality abstracted from this month: which must otherwise have been a full month, if December the preceding month was an hollow one, and of the regular length of Numa's full month, 31 days, as December was of his hollow month, 29 days; but by these means was rendered an hollow month, of a standard peculiar to itself indeed, 28 days, yet required by the necessity of the case, and not out of proportion to that of the full month last before, if December which preceded it might be regarded as such a month, of 29 days in length.

SECTION V.—*On the Intercalary system of the Calendar of Numa.*

There were writers among the Romans who attributed the first introduction of the Intercalary principle into the civil calendar to Romulus; as Licinius Macer[f]; to whom we may perhaps add Servius; quoted supra[g]. There were others who attributed it to Servius Tullius, as Junius Gracchus or Gracchanus[f]: some again, who ascribed it to the Decemvirs, as Tuditanus and Cassius Hemina[f]: others who referred it to the consul M' Acilius Glabrio, at no more remote a period than U. C. 563 of Varro; as Fulvius Nobilior[f]. But there can be no doubt that the first author of the regular lunar calendar among the Romans must have been the first who provided a regular intercalary system also for the use of that calendar; and there can be as little that this person was Numa Pompilius: to whom in fact the first introduction of the Intercalary rule was distinctly attributed by Valerius Antias in particular: Antias libro secundo Numam Pompilium sacrorum caussa id invenisse contendit[f].

Those statements which attribute the first institution of this kind to Romulus, or to Servius Tullius, we do not hesitate to reject as altogether without foundation. In what sense the rest may possibly be true will perhaps better appear hereafter. But with regard to the Intercalary system of the calendar of Numa, it appears from various testimonies[h] that such a system did make part of it from the first, and a very important part; that Numa provided his calendar with a regular system of that kind: without which indeed, it could not have been a lunæsolar calendar in any sense, nor possibly have taken account of the lunar and solar momenta in conjunction in any manner or within any length of time; it must have been simply lunar. And though it cannot be denied that nothing could have become more irregular than the actual rule of intercalation, as applied to the administration of the calendar both immediately prior to, and long before, the Julian correction; yet those who insist on this fact are careful to explain at the same time that it was not the fault of the calendar itself, nor because of any inherent defectiveness of the scheme provided by its author: but solely as the effect of time, and of the course of circumstances; or of negligence and inattention if not of design on the part of those who had the charge of the calendar. Thus Cicero[1], speaking of the same kind of provision for the use of such a calendar also as he himself must be supposed to be prescribing in this part of his Polity; Feriarum festorumque dierum ratio in liberis requietem habet litium et jurgiorum, in servis operum et laborum: quas compositor anni conferre debet et ad perfectionem operum rusticorum. quod tempus ut sacrificiorum libamenta serventur fetusque pecorum, quæ dicta in lege sunt, diligenter habenda ratio interkalandi est: quod institutum perite a Numa posteriorum pontificum negligentia dissipatum est.

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[f] Macrobius, Saturn. i. 13. 267.

[g] Page 66.

[h] Varro, De Lingua Latina, v. 55: Plutarch, Numa, xviii: Cæsar, lix: Solinus, i. § 43: Censorinus, De Die Natali, xx: Macrobius, Saturnalia, i. 13.

SECTION VI.—*On the Name of the Intercalary month of Numa.*

It is however a remarkable circumstance that though the use of the intercalary month must have been of perpetual recurrence in the regular administration of the calendar, and even in the irregular, down to the very year of the Julian correction, and though the same month must have continued to be used and under the same name; yet the name of this month, as originally introduced into the calendar and as originally denominated in some manner or other by Numa, occurs nowhere in Roman antiquity properly so called. The fact of intercalations in such and such instances is repeatedly noticed in contemporary Roman history; but the name of the month intercalated is not once mentioned. Dates of triumphs occur in the Fasti Capitolini, which were celebrated in this month; but they are always defined in such terms as these, Mense Interkalario—Idibus Interkalaribus, or the like. In short had not the name of this month been mentioned by Plutarch in his life of Numa and in that of Cæsar, we must for ever have remained in ignorance of it. We should have had no reason to doubt of the actual existence and actual use of such a month in the Roman calendar; but we should not have known what to call it; or whether it had any other name among the Romans themselves than that of the Intercalary month.

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[1] De Legibus, ii. 12.

And from the fact of this silence in Roman writers respecting the name of this month, it might be suspected at first sight that perhaps some mystery was connected with it; as is said to have been the case with one of the names of Rome[k]. We should be disposed however after all to ascribe it merely to accident. The name must have come to the knowledge of Plutarch; and he mentions it in such a manner himself as clearly to imply that *he* was aware of no mystery in it: *he* at least knew of no reason which required him to keep it secret, and to be cautious how he divulged it.

With regard to the name itself; Plutarch in his life of Cæsar calls it MERKEDONIVS; and in his life of Numa MERKEDINVS: so that there would seem to be equal authority for both; though the learned in modern times appear to be generally agreed to call it Merkedonius. *Μερκηδῖνον· τόπος τις* occurs in Suidas: and in some of the Julian calendars, or fragments of such calendars, apud Foggini, the characters MERK. stand opposite to certain days, and in some instances written in full MERCATVS, as if to denote a fair, or market-day. If the etymon of the word is the Latin Merx Mercis, Merces Mercedis, (of which perhaps no reasonable doubt can be entertained,) it may be questioned which of these forms of the name would be most legitimate, and most agreeable to its etymon. Mercedicius (aliter Mercedinus,) says Festus[l], Mercenarius, quod mercede se tueatur—yet Mercedonias (dies) he says also[m], dixerunt a mercede solvenda: days so called because wages were paid upon them. Lydus too quotes from Cincius something to the same effect in reference to the month of November[n]; *Κίγκιος ἐν τῷ περὶ ἑορτῶν λέγει τὸν Νοέμβριον παρὰ τοῖς παλαιοῖς Μερκηδῖνον ὀνομασθῆναι, ὡσανεὶ μισθοφόρον· ἐν αὐτῷ γὰρ τοῖς κτήτορσιν οἱ μισθωτοὶ τὰς προσόδους εἰσέφερον τοῦ παρελθόντος κύκλου, ἑτέρων καρπῶν αὖθις ἐπερχομένων*: which may be added to the other probable arguments of the length of the year of credit at Rome[o]; November from the time of the correction of the calendar of Numa by the Decemvirs having been the eleventh month; in the calendar of Numa having been the tenth.

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[k] Pliny, H. N. iii. 9. 610: xxviii. 4. 128: Plutarch, Quæst. Romanæ, lxi: Solinus, i. § 4: 5: Macrobius, Saturnalia, iii. 9: Servius, ad Georg. i. 498: Æn. i. 277: ii. 351. Lydus, De Mensibus, iv. 50. 85. 14.

[l] xi. 237. 7. Mercedicius.

[m] Ibid.

We conjecture that this peculiar name of Merkedinus or Merkedonius was given by Numa to the intercalary month of his calendar under an idea that something was thereby *gained* to the length of the year, or that something was due to the calendar which was thereby *paid*. Merces has the sense of interest due on money lent: thus Horace[p],

> Qui nisi quum tristes misero venere Kalendæ
> Mercedem aut numos unde unde extricat—

That is, either interest or principal. On this principle Merkedinus or Merkedonius would denote the Interest-month. Nor ought this to be considered a far-fetched idea. It is conceivable that a month inserted in the calendar at stated times only, yet made up of parts which belonged to the year, and were necessary to its integrity, at all times, might be so called. It was not so much a lucrum gained to the calendar, as the wages due to it for the service it rendered all along. It was the interest paid by the year for so many days lent to it by the calendar annually; and reclaimed only at these times.

SECTION VII.—*On the length and on the seat of the Intercalary month.*

The length of the Merkedonius is specified by Plutarch in his life of Numa only; and he states it there as if it was always 22 days[q]. But by Censorinus[r] and by Macrobius[s] it is represented as 22 days at one time and 23 days at another. And that such must actually have been the case with it follows from the proportion of the annual lunar standard assumed by Numa to the annual solar standard assumed by him also. Consequently the distinction of *cavus* and *plenus* was as applicable to his Merkedonius as to the ordinary months of his calendar; only that his Merkedonius *cavus* was a month of 22 days, his Merkedonius *plenus* was one of 23 days.

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[n] De Mensibus, iv. 92. 108. 18.

[o] Supra, page 72.

[p] Sermones, i. iii. 87. Cf. i. ii. 14. Quinas hic capiti mercedes exsecat.

[q] Numa, xviii.

[r] De Die Natali, xx.

[s] Saturnalia, i. 13. 265.

The seat of the intercalary month in the calendar of Numa is invariably represented as the end of his year and as the end of his calendar; the most natural place, as we have often had occasion to observe, for inserting at stated times an extra and supplementary month, the end and effect of which was to restore the original relations of the lunar to the solar year: the place too which appears to have been first fixed upon for it in every form of the lunæsolar calendar which has hitherto come under our notice, except the Arabian older than Hej'ra, or the Anglosaxon; and never except for special reasons, and from the sense of some particular necessity, afterwards changed for any other.

The œconomy however of the intercalary system in the calendar of Numa so far differed from that of any other, that whereas, in all other cases of this kind, the intercalary month was the twelfth or last regular month repeated, in this instance it was a thirteenth month added to the rest under a name of its own; and whereas, in every other case, the intercalary month never made part of the twelfth, in this instance it was inserted in the midst of the twelfth: for it is agreed that Numa's Merkedonius did not follow upon and continue his Februarius, but was grafted upon it at a certain period of its decursus, and so far was virtually incorporated with it; from which fact too some of the learned have taken occasion to maintain that in the intercalary years of his cycle his Februarius and his Merkedonius actually made up one month*.

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* This seems to have been the opinion of Scaliger. It is very possible there might be so much of a foundation for this opinion, as that in the legal construction of the rule of the calendar, and for all juridical purposes, the Merkedonius and February might have passed for one month. Yet the proper length of the Merkedonius *per se* was recognised by the Jurisconsulti also. Scaliger, De Emendatione, ii. 177 D: Et vetustiss. jurisconsultus Cato de verb. Signif. etiam testatur, cum ait mensem intercalarem

Yet the particular place in the month of Februarius itself, designated from the first for the insertion of the Merkedonius, is decisive that, agreeably to the rule which regulated the seat of the intercalary month in general, its most proper position was considered to be at the end of the year. Its actual seat in Numa's calendar was virtually at the end of his year. The end of Numa's year, as we have seen, was virtually the Terminalia, the 23d of his Februarius; and in the intercalary years of his cycle the epoch of his Merkedonius was Postridie Terminalia, the 24th of February also. So that on this principle his intercalary month came in at the end of his year; and along with the five residuary days of his Februarius, (which in this case always ceased to belong to Februarius and always became part of the Merkedonius,) it actually constituted the last month of his year: at one time as a *mensis cavus* of 27 days, at another as a *mensis plenus* of 28 days.

SECTION VIII.—*Testimonies to the Intercalary rule of Numa.*

i. Νουμᾶς δὲ τὸ παράλλαγμα τῆς ἀνωμαλίας ἡμερῶν ἕνδεκα γίνεσθαι λογιζόμενος, ὡς τοῦ μὲν σεληνιακοῦ (ἐνιαυτοῦ) τριακοσίας πεντήκοντα τέσσαρας ἡμέρας ἔχοντος τοῦ δὲ ἡλιακοῦ τριακοσίας ἑξήκοντα πέντε, τὰς ἕνδεκα ταύτας ἡμέρας διπλασιάζων ἐπήγαγε παρ' ἐνιαυτὸν ἐπὶ τῷ Φεβρουαρίῳ μηνὶ τὸν ἐμβόλιμον, ὑπὸ 'Ρωμαίων Μερκηδῖνον καλούμενον, εἴκοσι καὶ δυοῖν ἡμερῶν ὄντα[t]—Οὐ γὰρ μόνον ἐν τοῖς παλαιοῖς πάνυ χρόνοις τεταραγμέναις ἐχρῶντο 'Ρωμαῖοι ταῖς τῶν μηνῶν πρὸς τὸν ἐνιαυτὸν περιόδοις . . . ἀλλὰ καὶ περὶ τὴν τότε οὖσαν ἡλιακὴν (σεληνιακὴν) οἱ μὲν ἄλλοι παντάπασι τούτων ἀσυλλογίστως εἶχον, οἱ δ' ἱερεῖς μόνοι τὸν καιρὸν εἰδότες ἐξαίφνης καὶ προῃσθημένου μηδενὸς τὸν ἐμβόλιμον προσέγραφον μῆνα, Μερκηδόνιον ὀνομάζοντες· ὃν Νουμᾶς ὁ βασιλεὺς πρῶτος ἐμβαλεῖν λέγεται, μικρὰν καὶ διατείνουσαν οὐ πόρρω βοή-

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constare ex diebus xxviii—v. 461 C: Cato putat mensem intercalarem addititium esse, omnesque ejus dies pro momento temporis observat, extremoque diei mensis Februarii attribuit Q. Mutius. mensis autem intercalarius constat ex diebus viginti octo. This opinion of Q. Mutius seems to confirm what we have said; that in a legal point of view the Merkedonius was not distinct from February. February absorbed the Merkedonius, and made it one with itself.

[t] Plutarch, Numa, xviii.

θειαν ἐξευρὼν τῆς περὶ τὰς ἀποκαταστάσεις πλημμελείας, ὡς ἐν τοῖς περὶ ἐκείνου γέγραπται[u].

ii. Terminalia: quod is dies anni extremus constitutus. duodecimus enim mensis fuit Februarius; et cum interkalatur inferiores quinque dies duodecimo demuntur mense[w].

iii. Denique cum interkalarem mensem viginti duum vel viginti trium dierum alternis annis addi placuisset, ut civilis annus ad naturalem exæquaretur; in mense potissimum Februario inter Terminalia[x] (the 23d) et Regifugium[x] (the 24th) interkalatum est[y].

iv. Cum ergo Romani ex hac distributione Pompilii ad lunæ cursum sicut Græci annum proprium computarent; necessario et interkalarium mensem instituerunt more Græcorum .... alternisque annis binos et vicenos, alternis ternos et vicenos, interkalares expensabant interkalationibus quatuor ... omni autem interkalationi mensis Februarius deputatus est, quoniam is ultimus anni erat. quod etiam ipsum de Græcorum imitatione faciebant. nam et illi ultimo anni sui mensi superfluos interserebant dies, ut refert Glaucippus qui de sacris Atheniensium scripsit. verum una re a Græcis differebant. nam illi confecto ultimo mense, Romani non confecto Februario, sed post vicesimum et tertium diem ejus interkalabant, Terminalibus scilicet jam peractis; deinde reliquos Februarii mensis dies, qui erant quinque, post interkalationem subjungebant: credo vetere religionis suæ more, ut Februarium omnino Martius consequeretur[z].

That this was the regular seat of the Merkedonius in the old Roman calendar is proved by actual instances of intercalary months, and of dates in those months, which we may have occasion to produce hereafter. It is proved also by the seat of the supernumerary day in the leap years of the Julian calendar; which was always Post vi Kalendas Martias, February 24: and on that account received itself the name of Bissex Kalendas Martias. For this day, it is agreed[a], was purposely reserved by Cæsar for its ancient place. As to the hypothesis alluded to above, that February along with the Merkedonius in the intercalary years of the cycle passed for one month; it might be true, as we have observed, in the legal construction of the Merkedonius and of its relation to the month of February: but it would not be true of the popular construction of these things, or of the common rule of reckoning. It is contradicted by the testimony of Varro and Macrobius; both of whom agree that in the intercalary years the last five days of February made part of a distinct month. Also by the fact that, in repeated instances of allusions to the intercalary month, the Kalendæ Interkalares are specified by name, in opposition both to the Kalendæ Februariæ before them, and to the Kalendæ Martiæ after them.

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[u] Plutarch, Cæsar, lix.

[w] Varro, De Lingua Latina, v. 55.

[x] Cf. Ovid, Fasti, ii. 639. 685. and the Maffæan calendar, apud Foggini.

[y] Censorinus, De Die Natali, xx.

[z] Macrobius, Saturnalia, i. 13. 264.

[a] Censorinus, De Die, xx. Macrobius, Saturnalia, i. 14. 269.

SECTION IX.—*On the number and length and alternation of the Intercalations in the cycle of Numa.*

With regard to the number of the intercalations in the cycle of Numa; we shall see hereafter that there were eleven in every cycle. With respect to the length; the answer is supplied by the testimonies quoted supra[b]; according to which there were two intercalary months every four years, containing 45 days between them. On this principle, the mean annual epact of Numa's lunar on his solar year was $\frac{45}{4}$ or 11 days 6 hours: and that is the difference of a lunar year of 355 days and a solar year of 366 days 6 hours.

The Merkedonius then being at one time 22 days in length and at another 23; the only question will be which description of Merkedonius must have given the law to the other, and must have been the first to be used. Now the sum of two years' epact being 22 days 12 hours, (that is being 22 days complete but not yet 23,) if an intercalary month was to be inserted at the end of these two years, it might naturally consist of 22 days complete, as not more than was necessary; but could not so properly consist of 23, which would be twelve hours or half a day more than the nature of the case required. The first Merkedonius therefore under such circumstances would be assumed at the nearest amount in whole days to the epact accumulated in two years' time; and that would be 22, not 23. The first Merkedonius in the course of the cycle consequently would be 22 days long.

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[b] Page 227.

The second would be 23; and so on. The rule of alternation therefore with respect to this month too, until for particular reasons it might be necessary to deviate from it, would follow the analogy of the same thing in the ordinary months; each of which was *cavus* and *plenus* of its kind, not *plenus* and *cavus*; at first at least.

SECTION X.—*On the divisions of the months in the Calendar of Numa; and on the mode of denominating them and of distinguishing them asunder. Whether such divisions existed in the Calendar of Romulus.*

The next subject for our consideration is the mode of dividing the months into their component parts, which are of course the days of the month; and the mode of denominating those different divisions of the months. And by these divisions and these denominations it will be understood that we mean the distinctions and names of Kalendæ, Nonæ, and Idus, which taken collectively comprehended the whole of a Roman month; of such months at least as made up the calendar of Numa.

It seems to have been taken for granted by our Roman authorities, and especially by Macrobius[c], that these distinctions were as old as the calendar of Romulus; and consequently that they must have been derived to the calendar of Numa, (of which they confessedly made part,) from that of Romulus. We apprehend however that this assumption rested ultimately upon another; viz. that the year of Romulus was the same kind of lunar year as that of Numa; and that except in the number of their months respectively there was little or no difference between them: and this assumption was purely gratuitous. It appears to us on every account most probable, (or rather morally certain,) that these distinctions in the component parts of the months of the calendar were first introduced by Numa; and these peculiar names by which they were known and discriminated respectively were first invented for them by him, and were first imposed upon them by him: and if those explanations of the principle of these divisions and of the reasons and import of these denominations, which we hope to propose by and by, are admitted to be just and true, (as we think they must be,) we may rest assured that the first author of such distinctions and of such denominations must have been the first author of the calendar in which they are found. They must have been expressly contrived for the use of that calendar in particular*.

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[c] Saturnalia, i. 12. 255: 15. 272.

SECTION XI.—*On the etymology of the terms* Kalendæ, Nonæ, *and* Idus.

It is usual with the Latin grammarians both ancient and modern to derive the first of these terms, Kalendæ, from an obsolete verb in the Latin language which must have been originally the same with the Greek verb καλεῖν: viz. *calo, to call:* and the second, Nonæ, from *novenus, nonus*, or *novus:* the third, Idus, from *iduo*, supposed to have been some time or other in use in the Tuscan or other language of ancient Italy in the sense of *divido, to divide.* Nor does there seem to be any good reason for calling in question the probable truth of these derivations, except in the case of the second, that which derives Nonæ from *novus*. It does not appear to us that the name of Nonæ could ever have been obtained from novus; though its derivation from Novenus, *per syncopen* Nounus or Nonus, is manifestly possible.

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* There are it is true some dates in the Fasti Capitolini, which come in the reign of Romulus, and yet are noted in that compilation on the Ides of the month; as if the months had Ides in the time of Romulus. But such would probably be the case in that compilation if those dates had been handed down traditionally as the 15th of the month or as the middle of the month. It would naturally be concluded that the middle of the month, or the 15th of the month, must have been the Ides. Besides, we do not know what degree of reliance to place on the authenticity of entries and dates of such an antiquity as these. There is nothing of this kind, and of equal antiquity, which has been handed down traditionally, in connection with the calendar of Romulus, except the date of the eclipse at his death, the Nonæ Quinctiles. If that day was handed down from the first under that particular designation of the Nonæ Quinctiles, then Quinctilis in the calendar of Romulus must have had Nonæ from the first; and if Quinctilis had nones, every other month must have had them. And if all the months in the calendar of Romulus had Nonæ from the first; there would be no reason to suppose that they must not also have had Kalendæ and Idus from the first. But this same day is also styled the Nonæ Caprotinæ; and Lampridius calls it even the Nonæ Juliæ. All these different names for it, (the Nonæ Quinctiles, the Nonæ Caprotinæ, the Nonæ Juliæ,) mean only one and the same thing, the seventh of its proper month. It would no more follow from the first that the seventh of this month was called the Nones of Quinctilis in the time of Romulus, than from the second, that it was called the Nonæ Caprotinæ, or from the third, that it was called the Nonæ Juliæ.

We are clearly of opinion therefore that the second of these etymons in this particular instance must be set aside and rejected altogether. Nor perhaps would it ever have been thought of, or ever have been considered admissible, but for the old and inveterate prejudice upon this point which has influenced the judgment of the learned; viz. that the Nones of the months in the Roman calendar were the seats of the new moons. Adopting then the verbal definitions of these different terms, with this particular exception, as possibly just and true; (as coming at least recommended by a prescription of long standing;) let us proceed to inquire how far they may assist us in discovering the meaning of the terms themselves, and what light the discovery of such a meaning in each instance is calculated to reflect on the *rationale* or principle of the denomination: for which purpose we will begin with that of Idus first.

SECTION XII.—*On the meaning of the name of the* Idus *in the Roman month. Falsehood of the common explanation, that the* Idus *divided the month.*

The etymon of this name of the Idus in the Roman calendar being implicitly assumed as some theme which denoted to divide; the reason or explanation of the name, as so applied to a certain day of the month, commonly proposed is Because that day, (that is, the Idus,) divided or bisected the month. Hence it is that the Idus in the Roman calendar, the πανσέληνον in the Greek, and the διχομηνία in the natural lunar month, are so generally identified by the ancients, one with another; and are so commonly treated as denoting the same thing. Nor is this mode of speaking concerning the Idus of the Roman month confined to the Greeks, who might be supposed not to have understood the meaning of terms in the Roman calendar as well as in their own. It appears in Roman writers themselves; as for instance in Horace, alluding to the Ides of April, the birth-day of Mæcenas:

> Qui dies mensem Veneris marinæ
> Findit Aprilem[d].

On which the scholiast observes; Findit, Dividit: quia Idus mensem fere in medium dividunt.

It is however an objection to the truth of this representation, and in our opinion an insuperable one, that it assigns a reason for the name of Idus as given to a particular day of the month which is directly contradicted by the matter of fact. Neither in the old Roman calendar, nor in any correction or modification of the old, did the Idus bisect or divide the month. This name then must have been given to a certain day of the month with very little regard to propriety, or rather with a total disregard of fitness and propriety, if the reason of the name, or the thing intended thereby, was *this;* that the Idus was the middle day of the month; that the Idus bisected or divided the month.

For let us consider the actual state of the case in this respect. There was no month in the Roman calendar, older than the correction of Cæsar, which was not either *cavus* or *plenus;* there was no *mensis cavus*, with the exception of February, which did not consist of 29 days; nor any *mensis plenus* which did not consist of 31 days. The middle day in the *menses cavi* consequently was the 15th; that in the *menses pleni* was the 16th. Now in the *menses cavi* the Idus all fell on the 13th day of the month; and in the *menses pleni* on the 15th. In neither case therefore did they fall on the middle day of the month. They fell two days before it in the *menses cavi*, and one day at least before it in the *menses pleni*. The number of days, from the Kalendæ exclusive to the Idus inclusive, in the *menses cavi* was 12; and in the *menses pleni* was 14: from the Idus exclusive to the Kalendæ of the next month exclusive also, in months of either kind alike it was 16. In the month of Februarius in particular, the first division of the month from the Kalendæ to the Idus consisted of 12 days; and the latter, from the Idus to the Kalendæ, in common years, when Februarius had 28 days, consisted of 15 days, in the intercalary year, when

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[d] Od. iv. 11. 15.

Februarius had only 23 days, it consisted of no more than ten. In what sense then could the Ides of February in particular, in the intercalary years, be said to have bisected that month?

Under these circumstances, it must be admitted to be unquestionably false to assume that the Idus in the old Roman calendar, or indeed in any state of the calendar, ever did divide or ever could have divided the months; and therefore we must either conclude that the name itself did not carry with it the idea of division of any kind, or (if the truth of the explanation which derives it on grammatical principles from a root denoting to divide cannot reasonably be disputed) that the subject of the division implied by this denomination must have been something else, and not the days of the month. Let us therefore proceed to inquire whether some other subject of reference, and in some other relation, might not have actually entered the Roman month from the first; with which the idea of such a division, as on grammatical principles would seem to have been implied in the use of this term Idus, might very properly be connected.

SECTION XIII.—*On the analogy of the word* Idus *in Latin to the word* Διχοτόμος *or* Διχότομος *in Greek.*

We observe then i. That in this word Idus in the Latin language, supposed, as above, to be derived from a verb denoting to divide or to bisect, there is a manifest analogy to the term *διχοτόμος* or *διχότομος* in Greek. We observe ii. That this word *διχότομος* in Greek is the regular denomination which not only popular writers in that language but also the astronomers themselves agreed to give to the appearance of the moon, when its orb was equally divided between the enlightened and the unenlightened part; i. e. when the age of the moon was half way between the change and the full, or between the full and the change. In other words, this was the term by which all authors in that language, without reference to the subject about which they were writing, agreed to express the appearance of the moon at the end of its first and at the beginning of its second quarter, or at the end of its third and at the beginning of its fourth.

It would be almost superfluous to produce instances of the word so applied in popular use. We shall confine ourselves at present to examples of the idiom in question, taken from the astronomers; i. e. from scientific writers; who might be expected to express themselves on such subjects with a due regard to precision and exactness in the use of terms.

i. Geminus[e]: Ὅταν (δὲ) παραλλάξῃ ἡ σελήνη πρὸς τὸν ἥλιον περὶ τὴν νουμηνίαν, τότε μηνοειδὴς ἡ σελήνη θεωρεῖται κ᾽, τ. λ. ὅταν δὲ τὸ $\frac{\alpha}{\delta}$ μέρος τοῦ ζωδιακοῦ κύκλου ἀπόσχῃ σελήνη, διχότομος θεωρεῖται[e]—Εἰσὶ δὲ οἱ σχηματισμοὶ οἵδε· μηνοειδὴς, διχότομος, ἀμφίκυρτος, πανσέληνος. μηνοειδὴς μὲν οὖν γίνεται περὶ τὰς ἀρχὰς τῶν μηνῶν· διχότομος δὲ περὶ τὴν ὀγδόην τοῦ μηνός· ἀμφίκυρτος δὲ περὶ τὴν δωδεκάτην, πανσέληνος δὲ περὶ τὴν διχομηνίαν[f]—Ταχίστη μὲν γὰρ φαίνεται ἡ σελήνη μηνοειδὴς τῇ νουμηνίᾳ· βραδυτάτη δὲ τῇ τρίτῃ...διχότομος δὲ γίνεται ταχίστη μὲν περὶ τὴν ἕκτην, βραδυτάτη δὲ περὶ τὴν ὀγδόην. ἀμφίκυρτος δὲ γίνεται περὶ τὴν δεκάτην ταχίστη, βραδυτάτη δὲ περὶ τὴν ιγ΄. πανσέληνος δὲ γίνεται ταχίστη μὲν περὶ τὴν ιγ΄, βραδυτάτη δὲ περὶ τὴν ιζ΄[g]. And so again in the retrograde order from the full to the change—ἀμφίκυρτος again at the earliest περὶ τὴν ιη΄, at the latest περὶ τὴν κβ΄: διχότομος again at the earliest περὶ τὴν κα΄, at the latest περὶ τὴν κγ΄: μηνοειδὴς again at the earliest on the 25th, at the latest on the 26th[h].

ii. Cleomedes: The lunar phases are enumerated in the following order; the μηνοειδὲς, the διχότομον, the ἀμφίκυρτον, and the πλῆρες[i]—Οἱ μὲν οὖν παλαιοὶ, it is observed, τρία εἶναι περὶ τὴν σελήνην σχήματα ἔφασαν, τὸ μηνοειδὲς τὸ διχότομον τὸ πεπληρωμένον· ὅθεν καὶ τριπρόσωπον τὴν Ἄρτεμιν ποιεῖν ἔθος ἐστίν. οἱ δὲ νεώτεροι προσέθεσαν τοῖς τρισὶ τὸ νῦν καλούμενον ἀμφίκυρτον, ὃ μεῖζόν ἐστι τοῦ διχοτόμου μεῖον δὲ τοῦ πανσελήνου[k].

iii. Ptolemy: Ἵνα τὰς μὲν ἡμέρας τῶν ἐπισημασιῶν ἐφαρμόζωμεν ταῖς τε τῶν ἔγγιστα διχοτόμων, καὶ ταῖς πρὸ συνόδου μάλιστα καὶ πανσελήνου[l].

iv. Aratus:

> Οὐχ ὁράας, ὀλίγη μὲν ὅταν κεράεσσι σελήνη
> ἑσπέροθεν φαίνηται, ἀεξομένοιο διδάσκει
> μηνὸς, ὅτε πρώτη ἀποκίδναται αὐτόθεν αὐγὴ

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[e] vii. 39. B.
[g] Ibid. 40. A–C.
[i] v. 132. 1. Περὶ Μετεώρων.
[f] Ibid. E.
[h] Ibid.
[k] v. 135. 5.
[l] Prooemium in Librum De Apparentiis, p. 19. Opp. iii. Halma.

ὅσσον ἐπισκιάειν, ἐπὶ τέτρατον ἦμαρ ἰοῦσα.
ὄκτω δ' ἐν διχάσιν· διχόμηνα δὲ παντὶ προσώπῳ[m].

Ὅταν δὲ ἄρχηται σκιὰν τῶν σωμάτων ἀποτελεῖν τετράδα τοῦ μηνὸς σημαίνει. ὅταν δὲ εἰς ἡμικύκλιον διαιρῆται διχότομος ὀνομάζεται η' μοῖραν ἐπέχουσα[n] κ̀, τ. λ. The second ἀμφίκυρτος is dated at 19 days old; the second διχότομος at 22 or 23—Ἀπὸ δὲ γέννης τρίτην ἡμέραν ἄγουσα ἡ σελήνη μηνοειδὴς κατὰ τὸ σχῆμα τοῦ φωτὸς καλεῖται...ὀγδοαία δὲ οὖσα διχότομος ὀνομάζεται ὅταν τοῦ κύκλου αὐτῆς τὸ ἥμισυ φωτισθῇ[n]. At ten days old ἀμφίκυρτος (ὀνομάζεται): at fifteen πανσέληνος and διχόμηνος. And so back again by the same steps to the change[o].

Ἀλλ' ὅσα μὲν τριτάτη τε τεταρταίη τε πέληται
μέσφα διχαιομένης, διχάδος γε μὲν ἄχρις ἐπ' αὐτὴν
σημαίνει διχόμηνον· ἄταρ πάλιν ἐκ διχομήνης
ἐς διχάδα φθιμένην· ἔχεται δέ οἱ αὐτίκα τετρὰς
μηνὸς ἀποιχομένου, τῇ δὲ τριτάτῃ ἀπιόντος[p].

v. Theophrastus: Ὡς δ' αὔτως ἔχει καὶ περὶ τὸν μῆνα ἕκαστον· διχοτομοῦσί τε γὰρ αἵ τε πανσέληνοι καὶ αἱ ὀγδόαι καὶ αἱ τετράδες· ὥστε ἀπὸ νουμηνίας ὡς ἀπ' ἀρχῆς δεῖ σκοπεῖν. μεταβάλλει γὰρ ὡς ἐπιτοπολὺ ἐν τῇ τετράδι· ἐὰν δὲ μὴ, ἐν τῇ ὀγδόῃ· εἰ δὲ μὴ, πανσελήνῳ. ἀπὸ δὲ πανσελήνου εἰς ὀγδόην φθίνοντος· καὶ ἀπὸ ταύτης εἰς τετράδα. ἀπὸ δὲ τετράδος εἰς τὴν νουμηνίαν . . . μάλιστα γὰρ ἐὰν μέλλῃ μεταβάλλειν ἐν ταῖς διχοτομίαις μεταβάλλει[q] *.

* On the subject of the lunar phases and of the divisions of the lunar month in general, the following passages may be compared together.

i. Ἀλλ' οὑμὸς αἰεὶ πότμος ἐν πυκνῷ θεοῦ
τροχῷ κυκλοῦται καὶ μεταλλάσσει φύσιν.
ὥσπερ σελήνης δ' ὄψις εὐφρόνας δύο
στῆναι δύναιτ' ἂν οὔποτ' ἐν μορφῇ μιᾷ.
ἀλλ' ἐξ ἀδήλου πρῶτον ἔρχεται νέα,
πρόσωπα καλλύνουσα καὶ πληρουμένη.
χὤτανπερ αὐτῆς εὐγενεστάτη φανῇ
πάλιν διαρρεῖ κἀπὶ μηδὲν ἔρχεται[1].

Ἤδη γὰρ αὐτῷ
πατρὶ μὲν βωμῶν ἁγισθέν-

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[m] Διοσημεῖαι, 1. Cf. Festus, Prognostica, 1–26.

[n] Scholia in loc.

[o] Cf. also Scholia Cod. Mosq. in locum.

[p] Diosemiæ, 74.

[q] De Signis Pluviarum, vi. cap. i. § 8. p. 784. Schneideri.

[1] Sophocles, apud Plutarch. Demetrius, xlv. Cf. Fragmenta, 713. *Dindorfii.*

We will therefore assume it as manifestly possible, and even as probable *a priori* in the highest degree, that Idus in

των διχόμηνις ὅλον χρυσάρματος
ἑσπέρας ὀφθαλμὸν ἀντέφλεξε μήνα[2].

Ὅτε δ' ἐστιν ἡ σελήνη πανσέληνος δίχα κόπτει τὸν μῆνα· ἐν γὰρ τεσσαρεσκαιδεκάτῃ τοῦ μηνὸς τοῦτο γίνεται[3].

Ἐν διχομηνίδεσσι
δὲ ἑσπέραις ἐρατὸν
λύοι κεν χαλινὸν ὑ-
φ' ἥρῳ παρθενίας[4].

Λαμπρὰ δὲ πανσέληνος ἐν μέσῳ σάκει
πρέσβιστον ἄστρων νυκτὸς ὀφθαλμὸς πρέπει[5].

Κύκλος δὲ πανσέληνος ἠκόντιζ' ἀεὶ
μηνὸς διχήρης[6].

Πόσου δὲ τὸν πρωκτὸν χρόνου ξυνήγαγεν;
τῇ πανσελήνῳ. κᾆτ' ἀπῆλθεν οἰκάδε[7].

Κεραῆς ἴνδαλμα σελήνης,
ἀμφιφαὴς ὅτε βαιὸν ἀποστίλβουσα κεραίης
ἄκρα διαπλήσασα δύω νεοφεγγέος αἴγλης
κεκλιμέναις ἀκτῖσι μέσον κύκλοιο χαράσσει
δίζυγι κεκριμένῳ μαλακῷ πυρί· μεσσατίης δὲ
γυμνὰ χαρασσομένης ἔτι φαίνετο κύκλα κεραίης[8].

Οἷς ἔνι λευκαίνουσα πόλον κερόεσσα σελήνη
κύκλον ὅλον πλήσασα σοφῷ πυρὶ μῆνα λοχεύει
μεσσοφανὴς ἐπίκυρτος ὅλῳ πλήθουσα προσώπῳ[9].

Ὡς δ' ὁπότε πλήθουσα πυρὸς γλαυκοῖο σελήνη
οὐρανὸν αἰγλήεντα κατεχρύσωσε προσώπῳ,
οὐχ ὅτε που γλωχῖνας ἀποξύουσα κεραίης
πρωτοφαὴς ὑπὸ μηνὸς ἀνίσταται ἄσκιον ἀχλὺν,
ἀλλ' ὅτε κυκλώσασα περίτροχον ὄμματος αὐγὴν
ἀντιτύπους ἀκτῖνας ἐφέλκεται ἠελίοιο.

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[2] Pindar, Ol. iii. 33.
[3] Schol. Rec. ad v. 34.
[4] Pindar, Isthmia, viii. 93.
[5] Æschylus, Septem contra Thebas, 389. *Dindorfii.*
[6] Euripides, Ion, 1155. *Dindorfii.*
[7] Aristophanes, Acharnenses, 83. Cf. Scholia in loc. *Dindorfii.*
[8] Nonnus, xxii. 348.
[9] Ibid. xxxviii. 243.

Latin was always intended to express the same idea as διχοτόμος in Greek, and each in reference to the moon alike.

τοίη μαρμαίρουσα Θεραπναίη τότε νύμφη
οἴνοπα πῆχυν ἀνεῖλε φίλου πυρὸς ἠνοχῆα[10].

'Ατὰρ τότε γ' 'Ηρακλῆα
μοῦνον ἀπειρεσίης τηλοῦ χθονὸς εἴσατο Λυγκεὺς
τὼς ἰδέειν ὥς τίς τε νέῳ ἐνὶ ἤματι μήνην
ἢ ἴδεν ἢ ἐδόκησεν ἐπαχλύουσαν ἰδέσθαι[11].

Quam Troïus heros,
Ut primum juxta stetit adgnovitque per umbram
Obscuram, qualem primo qui surgere mense
Aut videt aut vidisse putat per nubila lunam[12].

Falcata novissima cauda est
Qualia dividuæ sinuantur cornua lunæ[13].

Nox erat et bifores intrabat luna fenestras
Mense fere medio quanta nitere solet[14].

Inde per Arcturum mediæque silentia lunæ
Arva super populosque meat[15].

ii. *Τὴν γὰρ σελήνην ἑωράκαμεν διχότομον μὲν οὖσαν ὑπελθοῦσαν δὲ τὸν ἀστέρα τοῦ Ἄρεος*[16]—*Βοῦς ἕβδομος· ὅτι δὲ πέμμα ἐστὶ καὶ τῆς σελήνης ἱερὸν Κλειτόδημος ἐν Ἀτθίδι φησί*[17]—*Ἡ τρίγλα κατὰ τοὺς παλαιοὺς Ἀρτέμιδος ἄγαλμα,* (because it spawned thrice a year) *καὶ Ἄρτεμις ταὐτὸν δὲ εἰπεῖν σελήνη τριταία μετὰ γέννησιν σαφῶς διαφαίνεται*[18].

iii. Of the lunar rainbow: *Καὶ μεθ' ἡμέραν μὲν ἶρις γίγνεται, νύκτωρ δ' ἀπὸ σελήνης ὡς μὲν οἱ ἀρχαῖοι ᾤοντο οὐκ ἐγίγνετο· τοῦτο δ' ἔπαθον διὰ τὸ σπάνιον. ἐλάνθανε γὰρ αὐτούς. γίνεται μὲν γὰρ ὀλιγάκις δὲ γίγνεται. τὸ δ' αἴτιον ὅτι τ' ἐν τῷ σκότει λανθάνει τὰ χρώματα καὶ ἄλλα πολλὰ δεῖ συμπεσεῖν καὶ ταῦτα πάντα ἐν ἡμέρᾳ μιᾷ τοῦ μηνός. ἐν τῇ πανσελήνῳ γὰρ γενέσθαι ἀνάγκη τὸ μέλλον ἔσεσθαι, καὶ τότε ἀνατελλούσης ἢ δυνούσης. διόπερ ἐν ἔτεσιν ὑπὲρ τὰ πεντήκοντα δὶς ἐνετύχομεν μόνον*[19]. The phenomenon, which may sometimes be observed when the moon is two or three days old, the illumination of its dark hemisphere by the light reflected from the earth,

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[10] Tryphiodorus, De Ilii Excidio, 512.

[11] Apollonius Rhodius, iv. 1477.

[12] Virgil, Æn. vi. 451.

[13] Ovid, Metam. iii. 681. De Delphinis.

[14] Ibid. De Ponto, iii. 3. 5.

[15] Statius, Thebaïs, ii. 58.

[16] Aristotle, Opp. i. 292. 3. De Cœlo, ii. 12. Cf. ii. 911.35 *b*. Problema xv. 7.

[17] Hesychius. Cf. in Ἕβδομος βοῦς.

[18] Eustathius, ad Il. Α. 206. i. 74. l. 19. = 65. Cf. iv. 144. 44. = 1269. ad Il. Υ. 73.

[19] Aristotle, Opp. i. 372. 21. Meteorologica, iii. 2.

On this principle, the Idus in the calendar of Numa must have been the seat of the lunar dichotomy; and therefore

is thus noticed by Basil[20]: Ἔξεστι γάρ σοι ὅσα καὶ ἐν καθαρῷ τῷ ἀέρι καὶ πάσης ἀχλύος ἀπηλλαγμένῳ, ὅταν μάλιστα μηνοειδὴς τυγχάνῃ κατὰ τὸ σχῆμα, ἐπιτηρήσαντι κατιδεῖν τὸ ἀλαμπὲς αὐτῆς καὶ ἀφωτιστὸν, ὑπὸ τηλικαύτης ἀψῖδος περιγραφόμενον ἡλίκη ἐν ταῖς πανσελήνοις τὴν πᾶσαν αὐτὴν ἐκπληροῖ.

iv. Σελήνης σχήματα μηνοειδὴς, ἀμφίκυρτος, ἡμίτομος, πανσέληνος[21]— Ἢ καὶ δι' ἥντινα αἰτίαν διχότομος ἢ ἀμφίκυρτος γίγνομαι[22]— Suidas, De Pythagoreis[23], Οἳ αὐτὸν ἐτίμων καὶ τὰ τέσσαρα, διὰ τὰς τέσσαρας τῆς σελήνης μορφάς· ἀρτίτοκος γὰρ μηνοειδὴς ἀμφίκυρτος καὶ πανσέληνος—Σχηματίζεσθαι δ' αὐτὴν πολλαχῶς· καὶ γὰρ πανσέληνον γιγνομένην καὶ διχότομον καὶ ἀμφίκυρτον καὶ μηνοειδῆ[24]—Νῦν γὰρ ἐν μὲν τοῖς κατὰ μῆνα σχηματισμοῖς πάσας λαμβάνει τὰς διαιρέσεις· καὶ γὰρ εὐθεῖα γίνεται καὶ ἀμφίκυρτος καὶ κοίλη[25]—Σελήνη μὲν γὰρ ἐν μηνὶ τὸν ἑαυτῆς διαπεραίνεται κύκλον, αὐξομένη τε καὶ μειουμένη (corr. μεσουμένη) καὶ φθίνουσα, ἥλιος δὲ ἐν ἐνιαυτῷ[26]—Διχόμηνος . . . . ἔστι δὲ ἡ πέμπτη καὶ δεκάτη[27]—Διχομηνία· τὸ ἥμισυ τοῦ μηνὸς (ἢ) τῆς σελήνης, ὅτε πληροσέληνός ἐστι· διχομηνιεία ὅτε πεντεκαιδεκαταία[28] —Διχομηνία, τοῦ μηνὸς τὸ ἥμισυ. καὶ διχομηνιαία πεντεκαιδεκαταία τοῦ μηνὸς ἢ τῆς σελήνης[29]—Μοίρας τε αὖ τὰ μέρη τῆς σελήνης, τριακάδα καὶ πεντεκαιδεκάτην καὶ νουμηνίαν[30]—Σελήνη δὲ πεντεκαιδεκάτη πλησιφαὴς γίνεται[31]— Καὶ ἐκ τούτων ἓν ἐποίησε τὴν σελήνην ὁ θεὸς ἀπεργασάμενος, ἣ τότε μὲν μείζων φαινομένη τότε δ' ἐλάττων διεξῆλθεν ἄλλην ἀεὶ φαίνουσα ἡμέραν μέχρι πεντεκαίδεκα ἡμερῶν καὶ νυκτῶν[32]— Nec modo ista præcipua: solem diei opificem lunamque solis æmulam noctis decus, seu corniculata seu dividua seu protumida seu plena sit[33]— Οὐχ ἑτέρα δὲ οὖσα αὐτῆς ἡ Ἑκάτη τρίμορφος εἰσῆκται, διὰ τὸ τρία σχήματα γενικώτατα ἀποτελεῖν τὴν σελήνην, μηνοειδῆ γενομένην καὶ πανσέληνον καὶ τρίτον τι (τρίτην τινὰ) ἄλλην σχέσιν πλάττουσαν ἀναλαμβάνεσθαι, καθὸ πεπλήρωται μὲν αὐτῇ ὁ μηνίσκος οὐ πεπλήρωται δ' ὁ κύκλος[34].

v. i. Quotidiana autem versationis remissione tertiam quartam in dies numerari: septimo die sol cum sit ad occidentem luna autem inter orientem et occidentem medias cœli teneat regiones, quod dimidia parte cœli spatio distet a sole, item dimidium candentiæ conversum habere ad solem . . . . quartadecima die plena rota totius orbis mittere splendorem. . . . uti

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[20] Opp. i. 52 B. C. Hexaēmeron, vi. 3.

[21] Pollux, iv. xx. § 157.

[22] Lucian, ii. 775. 20. Icaro-Menippus, 20.

[23] In Τετρακτύς.

[24] Zeno, apud Stobæum, Eclogæ Physicæ, i. 554: xxvii. 1.

[25] Aristotle, Opp. i. 297. 25. De Cœlo, ii. 14.

[26] Aristotle, Opp. i. 399. 6. De Cœlo ad Alexandrum, vi.

[27] Etymologicum M.

[28] Hesychius.

[29] Suidas, In voce.

[30] Clemens Alex. Strom. v. viii. § 50. p. 37. 4.

[31] Ibid. vi. xi. § 84. 149. 16.

[32] Plato, Opp. Pars iii. vol. iii. 349. 9. Epinomis, Incerti Auctoris.

[33] Apuleius, De Deo Socratis, ii. 223. e.

[34] Phornutus, 34. De Diana. Opuscula Mythologica, ii. 231. Cf. Lydus, De Mensibus, iii. 8. p. 37. l. 9, where *ten* lunar σχήματα were enumerated, when the text was entire.

either that of the first dichotomy or that of the second. Let it be further assumed at present that the Idus was the seat of the first dichotomy.

autem Aristarchus Samius[35] mathematicus vigore magno rationes varietatis disciplinis de eadem reliquit exponam.... itaque quot mensibus sub rotam solis radiosque primo die antequam præterit latens obscuratur, et quoniam est cum sole nova vocatur: postero autem die quo numeratur secunda præteriens a sole visitationem facit tenuem extremæ rotunditatis. cum triduum recessit a sole crescit et plus illuminatur.... cum pervenit ad diem septimum distans a sole occidente circiter medias cœli regiones dimidia lucet.... quarto autem decimo die cum in diametro spatio totius mundi absit a sole perficitur plena, et oritur cum sol sit ad occidentem .... septimodecimo die cum sol oritur ea pressa est ad occidentem: vigesimo et altero die cum sol est exortus luna tenet circiter medias cœli regiones.... circiter octavo et vigesimo die subit radios solis et ita menstruas perficit rationes[36]— ii. Καὶ γὰρ καὶ πλήρης ἐστὶν ἐπειδὰν διάμετρος ᾖ, καὶ διχότομος ἐπειδὰν τετράγωνος, καὶ ἀμφίκυρτος ἐπειδὰν τρίγωνος, καὶ μηνοειδὴς ἐπειδὰν ἑξάγωνος, καὶ νέα τότε πρῶτον ὅταν ἀπὸ συνόδου φαίνηται[37]— Σφοδρότεραι μὲν οὖν αἱ μεταβολαὶ κατὰ τὰς πρὸς ἥλιον αὐτῆς εἰσι συνόδους, καὶ προσέτι τὰς πανσελήνους φάσεις ὀνομαζομένας· ἐλάττους δὲ τούτων ἐν ταῖς διχοτόμοις, ἀμυδραὶ δ' ἐν ταῖς ἀμφικύρτοις καὶ μηνοειδέσιν[38]— Ἐφεξῆς δὲ ταύτης τῆς συνόδου τε καὶ τῆς πανσελήνου αἱ διχότομοι, εἰς δύο μέσον ἑκατέρα τέμνουσα τὸν μὲν τῆς αὐξήσεως χρόνον ἡ προτέρα, τὸν δ' αὖ τῆς μειώσεως ἡ δευτέρα[39]— Ἀσφαλὴς οὖν ἡ κρίσις ἀποτελεῖται τῆς ἐν ὅλῳ τῷ μηνὶ γενησομένης καταστάσεως ἐν τῇ δευτέρᾳ τῶν ἡμερῶν, ἐν ᾗ πρώτῃ καὶ σαφῶς ἡ σελήνη καὶ χρόνον ἀξιόλογον ὑπὲρ γῆς ἤδη φαίνεται.... πρῶτον δὲ σαφὴς ἐν τῇ δευτέρᾳ τῶν ἡμερῶν φαίνεται, καί ποτε μὲν μᾶλλόν ποτε δ' ἧττον[40]— Τοὐπίπαν δὲ τρεῖς ἡμέρας[41] τὰς περὶ σύνοδον (ἣ) ἀόρατος γίνεται τελέως, ἐν αἷς οὔπω τὰ παρ' ἡμῖν ἀλλοιοῦν ἱκανή. καί πως εἰς ταὐτὸν ὁ χρόνος αὐτῆς συμβαίνει τῆς τ' οἰκείας περιόδου τῆς τ' εἰς ἡμᾶς ἐνεργείας[42]— Ὥσπερ οὖν τὸν ὅλον ἐνιαυτὸν ὁ ἥλιος οὕτως ἡ σελήνη διατάττει τὸν μῆνα, καθ' ἑβδομάδας τῆς ἀλλοιώσεως ἐν αὐτῇ γιγνομένης. ἀπό τε γὰρ τῆς πρώτης φάσεως (on the second day) ἐπὶ τὴν διχότομον, ἀπὸ δὲ ταύτης ἐπὶ τὴν πανσέληνον, ἑκάτερος μὲν ὁ χρόνος ἡμερῶν ἐστιν ἑπτὰ, συναμφότερα δὲ τεσσαρεσκαίδεκα. κατὰ ταὐτὰ δὲ κἂν εἰ μετὰ τὴν διχομηνιαίαν ἕως τῆς δευτέρας διχοτόμου συναριθμήσῃς, ἑπτὰ καὶ ταύτας εὑρήσεις τὰς ἡμέρας, καὶ τὰς λοιπὰς δὲ τὰς

[35] Cf. i. 1. p. 18.

[36] Vitruvius, De Architectura, ix. 1. 268.

[37] Galen. Opp. ix. 902. 14. Περὶ κρισίμων ἡμερῶν, iii. 2.

[38] Ibid. 904. 9. Ibid. 3.

[39] Ibid. 905. 2.

[40] Ibid. 906. 7. Ibid. 4.

[41] Cf. Ibid. 931. 12. Ibid. 9.

[42] Ibid. 907. 5. Ibid. 4. The lunar periodic month is reckoned by Galen at 27 days $\frac{1}{3}$ (27 days 8 hours) ἔγγιστα. Cf. ix. 907 8. περὶ κρ. ἡμ. cap. 4: 929. 12. cap. 9: 930. 8: 931. 13: Ἐν τῷ τοσούτῳ γὰρ χρόνῳ τὸν τῶν ζωδίων κύκλον ἅπαντα διέρχεται: and what he means to say here is that such also is the interval for which the moon is visible, and able to affect external objects: 27 or 28 days in all also.

SECTION XIV.—*Inference from the analogy of the name of the* Idus, *in relation to the moon, of the meaning of the names of the* Kalendæ, *and of the* Nonæ, *in the same relation.*

The first inference from this assumption and the first confirmation of the assumption itself is *this;* that the Idus being

μέχρι τοῦ παντελῶς ἀφανισθῆναι τὴν σελήνην (on the 28th day)[43]— iii. *Ἐργάζεται δὲ διαφορὰς ἐν τῷ ἀέρι παραπλησίως τῷ ἡλίῳ καὶ ἡ σελήνη περιιοῦσα τὸν τῶν ζωδίων κύκλον. ἐργάζεται δὲ καὶ αὕτη τέσσαρας ὥρας μηνιαίας ἀναλογούσας ταῖς ἐτησίοις ἑβδοματικῷ δὲ ἀριθμῷ περικυκλεομένας. ἡ μὲν οὖν πρώτη τοῦ μηνὸς ἑβδομὰς ἀρχὴν μὲν ἀπὸ νεομηνίας ἔχει πρόεισι δὲ μέχρι διχοτόμου. ἔστι δὲ ἐοικυῖα ἔαρι· ὑγρὰ γὰρ καὶ θερμή. ἐντεῦθεν καὶ τὸ περιέχον ἐν τῷ καιρῷ τούτῳ ὑγρότερον, καὶ ὄμβροι τηνικαῦτα ὡς ἐπίπαν καταρρήγνυνται, καὶ οὗτοί γε ὑγροὶ καὶ γονιμώτατοι, παραπλήσιοι τοῖς ἐαρινοῖς. ἡ δὲ δευτέρα ἑβδομὰς ἄρχεται μὲν ἀπὸ διχοτόμου πρόεισι δὲ ἄχρι πανσελήνου, θέρει δὲ παραπλήσιος διὰ τοῦτο ὅτι καρποὺς πέσσει μάλιστα. ἥ τε μὴν μετὰ πανσέληνον ἑβδομὰς ἕως διχοτόμου φθινούσης τῆς σελήνης ξηρὰ καὶ φθινοπώρῳ παραπλήσιος· ἡ δὲ τελευταία χειμῶνι ἔοικεν*[44]— iv. *Ἡ σελήνη τε δι᾽ ἑπτὰ ἡμερῶν λαμβάνει τοὺς μετασχηματισμούς. κατὰ μὲν οὖν τὴν πρώτην ἑβδομάδα διχότομος γίνεται, κατὰ δὲ τὴν δευτέραν πανσέληνος, τρίτῃ δὲ ἀπὸ τῆς ἀποκρούσεως αὖθις διχότομος, καὶ τετάρτῃ ἀφανίζεται. ἀλλὰ καὶ αὐτὴ καθάπερ Σέλευκος ὁ μαθηματικὸς παραδίδωσιν ἑπτάκις μετασχηματίζεται. γίνεται γὰρ ἐξ ἀφέγγους μηνοειδὴς, εἶτα διχότομος, εἶτα ἀμφίκυρτος, πανσεληνός τε, καὶ κατὰ ἀπόκρουσιν πάλιν ἀμφίκυρτος, διχότομός τε ὁμοίως καὶ μηνοειδής*[45]— v. Et cum ad idem signum æquis partibus soli concurrerit obscuratur.. *σύνοδος* Græce *μήνης* dicitur .... exortus vero ejus adhuc gracilescens primitus mortalitati videtur cum ad secundum relicto sole migraverit signum. progressa itaque porrectius jamque abunde nitens cornutæ habitu *μηνοειδὴς* est adpellata. cum autem ... ad quartum pervenerit signum ... fit Græco sermone *διχόμηνος*, quæ forma semiorbem ostendit. procedens deinde jam disjunctissime quintoque signo correpto figuram monstrat *ἀμφίκυρτον*, utrinque prominentibus gibbis. e regione vero cum normaliter steterit contra lumine pleno fulgebit, domicilium septimi retinens signi. et in eodem tum etiam agens paullulumque progressa minuitur, quem habitum vocamus *ἀπόκρουσιν*; atque easdem formas repetit senescendo. traditurque doctrina multiplici congruente non nisi tempore intermenstrui deficere visam usquam lunam[46]— vi. Similibus quoque dispensationibus hebdomadum luminis sui vires .... disponit (luna). primis enim septem usque ad medietatem velut divisi orbis excrescit, et *διχό-*

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[43] Galen, Opp. ix. 908. 4. Περὶ κρ. ἡμ. cap. 5. Cf. 910. 6 sqq. Ibid. to the end of the chapter: 914. 1. cap. 7: 915. 5.

[44] Anthyllus, apud Stobæum, Florilegium, Titulus ci. 30.

[45] Clemens Alex. Strom. vi. xvi. §. 143. P. 187. 32.

[46] Ammianus Marcellinus, xx. 3. p. 219. Cf. cap. 1. on occasion of the solar eclipse of August 28 A. D. 360.

the seat of the first lunar dichotomy must also have been the seat of the Luna octava; i. e. the civil date of the moon at

τομος tunc vocatur: secundis orbem totum.... complet, et plena tunc dicitur: tertiis διχότομος rursus efficitur.... quartis ultima luminis sui diminutione tenuatur. septem quoque permutationibus quas phases vocant Græci toto mense distinguitur; cum nascitur, cum fit dichotomos, et cum fit ἀμφίκυρτος, cum plena, et rursus ἀμφίκυρτος, ac denuo dichotomos, et cum ad nos luminis universitate privatur[47] — Luna postquam a sole discedens novata est secundo fere die circa occasum videtur . . . tertio die tardius occidit quam secundo: et ita quotidie longius ab occasu recedit, ut septimo die circa solis occasum in medio cœli ipsa videatur . . . rursus post septem alios (dies) (the 22d or 23d) circa solis occasum latentis hemisphærii verticem tenet; et hujus rei indicium est quod medio noctis exoritur[48]—vii. Prima figura lunæ bicornis est. secunda sectilis. tertia dimidia. quarta plena. quinta iterum dimidia ex majore, sexta iterum sectilis, septima bicornis. septima autem semis et vicesima secunda semis in suo ordine mediæ sunt: ceteræ autem proportionales sunt[49]—viii. Proxima ergo cardini ideoque minimo ambitu vicenis diebus septenisque et tertia diei parte peragit spatia eadem quæ Saturni sidus altissimum triginta ut dictum est annis. deinde morata in coitu solis biduo cum tardissime e tricesima luce rursus ad easdem vices redit[50]—In coitu vero quod interlunium vocant quum apparere desinit[51]—ix. Nisi intermestri lunaque dimidiata materiam ne tangas[52]—x.

Thracio bacchante magis sub inter-
Lunia vento[53].

—xi. Interluniorum autem dies tempestatibus plenos, et navigantibus quam maxime metuendos, non solum peritiæ ratio sed etiam vulgi usus intelligit[54].

vi. i. Καὶ τὰ περὶ τὸν ἀέρα δὲ πάθη ταῖς μεταβολαῖς ταύτης συνδιατίθεται, ὡς μαρτυροῦσιν ἡμῖν αἵ τε κατὰ τὴν νουμηνίαν πολλάκις ἀπὸ γαλήνης καὶ νηνεμίας αἰφνίδιοι ταραχαί[55]—ii. Οἷον διὰ τί ὁ Νεῖλος φθίνοντος τοῦ μηνὸς μᾶλλον ῥεῖ; διότι χειμεριώτερος φθίνων ὁ μήν . . . διὰ τί δὲ φθίνων χειμεριώτερος ὁ μήν; διότι τῇ σελήνῃ τηνικαῦτα ἀπολείπει τὸ φῶς[56]—iii. Ἀκριβῶς μὲν οὖν ἡ περίοδος οὐ τέτακται ταῖς γυναιξί. βούλεται δὲ φθινόντων γίνεσθαι τῶν μηνῶν εὐλόγως· ψυχρότερα γὰρ τὰ σώματα τῶν ζώων ὅταν καὶ τὸ περιέχον συμβαίνῃ γίγνεσθαι τοιοῦτον. αἱ δὲ τῶν μηνῶν σύνοδοι ψυχραὶ διὰ τὴν τῆς σελήνης ἀπόλειψιν. διόπερ καὶ χειμερίους συμβαίνει τὰς συνόδους εἶναι τῶν μηνῶν[57]—Καὶ τὸ γίνεσθαι δὲ τὰ καταμήνια τὰ κατὰ φύσιν φθινόν-

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[47] Macrobius, Somnium Scipionis, i. 6. 34. 35.

[48] Ibid. 18. 88, 89.

[49] Isidore, Origines, iii. 53. 29. E. F. Cf. De Natura Rerum, xviii. 253. C.

[50] Pliny, H. N. ii. 6. 214.

[51] Ibid. xviii. 75. 267.

[52] Cato, De Re Rustica, xxxvii. Cf. Pliny, H. N, xvi. 75.

[53] Horace, i. 25. 11.

[54] Vegetius, De Re Militari, v. 10. This period is also called the Luna silens, or Lunæ silentium. Cf. our Prolegomena, 278 note.

[55] Basil, i. 61. A. Hexaëmeron, vi. 11.

[56] Scholia in Aristotelem, 249. 34. a. In Analytica Posteriora, Themistius.

[57] Aristotle, i. 738. 16. Περὶ ζώων γενέσεως, ii. 4.

eight days old: and the *luna octava* falling on the Idus, the ἕνη καὶ νέα or τριακὰς, the last day of the old moon, must have fallen on the Nonæ. The interval then between the Nonæ and the Idus in the ancient Roman calendar must always have been that which obtains in the natural month between the last day of the old moon and the first quarter or the eighth day of the new; that is, (the former being reckoned exclusively and the latter inclusively,) neither more nor less than eight days. Such is accordingly the interval which appears in the calendar of Numa between the Nonæ exclusive and the Idus inclusive, in all the months, whether *cavi* or *pleni*, alike; viz. eight days, and neither more nor less than eight*.

Again, the seat of the *luna octava* being always the Idus, that of the new moon or of the civil numenia must have been always the eighth day before the Idus; that is, the day

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των τῶν μηνῶν μᾶλλον, διὰ τὴν αὐτὴν αἰτίαν συμβαίνει. ψυχρότερος γὰρ ὁ χρόνος οὗτος τοῦ μηνὸς καὶ ὑγρότερος διὰ τὴν φθίσιν καὶ τὴν ἀπόλειψιν τῆς σελήνης. ὁ μὲν γὰρ ἥλιος ἐν ὅλῳ τῷ ἐνιαυτῷ ποιεῖ χειμῶνα καὶ θέρος, ἡ δὲ σελήνη ἐν τῷ μηνί. τοῦτο δ' οὐ διὰ τὰς τροπὰς ἀλλὰ τὸ αὐξανομένου συμβαίνει τοῦ φωτὸς τὸ δὲ φθίνοντος[58]—Εὐλόγως δὲ πάντων οἱ χρόνοι, καὶ τῶν κυήσεων καὶ τῶν γενέσεων καὶ τῶν βίων, μετρεῖσθαι βούλονται κατὰ φύσιν περιόδοις· λέγω δὲ περίοδον ἡμέραν καὶ νύκτα καὶ μῆνα καὶ ἐνιαυτὸν, καὶ τοὺς χρόνους τοὺς μετρουμένους τούτοις. ἔτι δὲ τὰς τῆς σελήνης περιόδους. εἰσὶ δὲ περίοδοι σελήνης πανσέληνοί τε καὶ φθίσεις καὶ τῶν μεταξὺ χρόνων αἱ διχοτομίαι. κατὰ γὰρ ταύτας συμβάλλει πρὸς τὸν ἥλιον· ὁ γὰρ μεὶς κοινὴ περίοδός ἐστιν ἀμφοτέρων. ἔστι δὲ ἡ σελήνη ἀρχὴ διὰ τὴν πρὸς τὸν ἥλιον κοινωνίαν καὶ τὴν μετάληψιν τὴν τοῦ φωτός· γίνεται γὰρ ὥσπερ ἄλλος ἥλιος ἐλάττων· διὸ συμβάλλεται εἰς πάσας τὰς γενέσεις καὶ τελειώσεις[59]—iv. Ποιεῖ δὲ καὶ ἡ σελήνη ταὐτὰ (with the sun) πλὴν οὐχ ὁμοίως. οἷον γὰρ ἀσθενὴς ἥλιός ἐστι. διὸ καὶ νύκτωρ δεινότεραι (storms) καὶ αἱ σύνοδοι τῶν μηνῶν χειμεριώτεραι[60].

* The same was the case in the calendar, as corrected by Cæsar. Hence it is that Horace applies to the Idus the epithet of *octonæ*.

Magni
Quo pueri, magnis e centurionibus orti,
Lævo suspensi loculos tabulamque lacerto,
Ibant octonis referentes Idibus æra.
Sermon. i. 6. 72.

[58] Aristotle, i. 767. 1. De Generatione, iv. 2.

[59] Aristotle, i. 776. 16. De Generatione, iv. 9.

[60] Theophrastus, De Ventis, v. § 17. p. 764. Cf. vi. cap. i. § 5. p. 783.

after the Nonæ. The day after the Nonæ (Postridie Nonas or viii Idus) in the Roman calendar in the *menses cavi* was always the fifth day after the Kalendæ exclusive, and in the *menses pleni* it was always the seventh; and that being the seat of the new moon, in the *menses cavi* it must always have fallen on the fifth day from the Kalendæ, and in the *menses pleni* on the seventh. It appears from various authorities, and especially from Varro[s], that while it was still the duty of the Pontifices expressly to notify such and such things, connected with the calendar, and as we may reasonably presume according to a rule and a custom prescribed and observed from the first; it was usual to call the people together on the Kalendæ or first day of every month, into the Curia Kalabra in the Capitol: and if the month was *cavus*, to make known that fact in these terms: Quinque or quinquies kalo, Juno Novella: if it was *plenus*, in these: Septem or septies kalo, Juno Novella.

There is every reason to suppose that Varro has recorded the terms of this ancient form of words in their original simplicity; and if so, they prove of themselves that it was intended to announce thereby the change of the moon in the sense of the civil *numenia*, five days after the day of the proclamation in the *menses cavi*, and seven days after it in the *menses pleni*: in either case on the day after the Nonæ, which was the fifth from the Kalendæ in the *menses cavi*, and the seventh in the *menses pleni*. Consequently, by the single fact of this ancient custom, as old as the calendar itself, every thing is proved for which we have been contending; both that the Nonæ, in all the months of the calendar, whether *cavi* or *pleni*, were the civil date of the lunar τριακὰς, and that the day after the Nonæ, the viii Idus, in all alike, was the civil date of the *numenia*; and that the Idus, the eighth day after the civil date of the *numenia* inclusive, must have been the civil date of the first quadrature or first dichotomy.

It appears moreover from this ancient form of words that the new moon was notified under the name of Juno Novella; that is, that one of the titles of the moon at the time when this form of words was prescribed was Juno. As the calendar at that time was lunar, and the proclamation was appointed to take place statedly on the first day of the month; that would be a sufficient reason why the months of the Roman calendar should have come to be considered to be under the *tutela* of Juno; and why the first day of the month, the Kalendæ in particular, should have been regarded as sacred to Juno: as we are told they were.

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[s] De Lingua Latina, v. 59. Cf. Macrobius, Saturnalia, i. 15. 273. Lydus, De Mensibus, iii. 7. 32. 1-7. Ibid. 9. 37. 16.

The same authors inform us that the Idus were consecrated to Jupiter; but on what principle has not been exactly explained: nor does it appear whether they were so from the first, or only in the course of time and as the effect of circumstances. It is conceivable however that if the Kalendæ, by virtue of the old usage in question, had come to be appropriated to Juno; the Idus on the principle of analogy might be considered to belong to Jupiter: and if they were supposed to have divided the months, the beginnings being sacred to Juno it might appear to be only consistent that the halves or middles should be consecrated to Jupiter. But there might after all be a further reason for this distinction derivable from the Nundinal calendar of prior antiquity; which may possibly appear hereafter.

It confirms these conclusions however not a little that, though the Kalendæ and the Idus, as the seat of the two principal lunar dates and lunar phases, (one of them, as we shall see hereafter, the seat of the second dichotomy, the other that of the first,) had each their tutelary deity or presiding principle, the Nonæ, as the seat of the τριακὰς, and consequently of an invisible phase of the moon, was sacred to no divinity in particular.

> Vindicat Ausonias Junonis cura Kalendas:
> Idibus alba Jovi grandior agna[t] cadit.
> Nonarum tutela deo caret[u].

Macrobius, De Jano: Junonium: quasi non solum mensis Januarii sed omnium mensium ingressus tenentem: in ditione autem Junonis sunt omnes Kalendæ[w]—Ut autem Idus omnes Jovi ita omnes Kalendas Junoni tributas et Varronis et Pontificalis adfirmat auctoritas: quod etiam Laurentes patriis religionibus servant, qui et cognomen deæ ex cæremoniis addiderunt, Kalendarem Junonem vocantes. sed et omnibus Kalendis a mense Martio ad Decembrem huic deæ Kalendarum die supplicant. Romæ quoque Kalendis omnibus, præter quod Pontifex minor in Curia Calabra rem divinam Junoni facit, etiam regina sacrorum porcam vel agnam in regia Junoni immolat: a qua etiam Janum Junonium vocatum esse diximus, quod illi deo omnis ingressus huic deæ cuncti Kalendarum dies videntur adscripti. cum enim initia mensium majores nostri ab exortu lunæ servaverunt, jure Junoni addixerunt Kalendas, lunam ac Junonem eandem putantes; vel quia luna per aërem meat, (unde et Græci lunam Ἄρτεμιν nuncuparunt, id est ἀεροτόμην, quod aëra secat,) Juno autem aëris arbitra est, merito initia mensium id est Kalendas huic deæ consecraverunt[x].

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[t] Ovid means the Ovis Idulis. Festus, ix. 177. 9: Idulis ovis dicebatur, quæ omnibus Idibus Jovi mactabatur. Cf. Fasti, i. 587. Macrobius, Sat. i. 15. 274.

[u] Fasti, i. 55.

[w] Saturnalia, i. 9. 238.

SECTION XV.—*On the inferences deducible from the above premises concerning the proper meaning of the terms* Kalendæ, Nonæ, *and* Idus, *as parts of the month, yet comprehending the whole.*

The next inference, deducible from the same premises, concerns the true meaning and application of these denominations for the different parts of the Roman month, the Kalendæ, Nonæ, and Idus, which comprehend the whole among them; there being no part of the month which is not reducible under one or other of them. The verbal definition of each proposed above being still implicitly received and still allowed to stand good; the light which is hereby thrown on the origin of these modes of dividing the month, and of speaking of each of its component parts, and the evident force and propriety which these terms acquire both in themselves and in their application, is a great confirmation of all our conclusions.

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[x] Saturnalia, i. 15. 275. Festus, iii. 108. 6: Curiales mensæ, in quibus immolabatur Junoni, quæ Curis est appellata. Cf. in Celibari, Curitim, and Curis. But Curialis would be more properly from curia. These curiales mensæ are most probably explained by what Dionysius relates, ii. 50, of Tatius, the Sabine king, after the union with Romulus; Ἐν ἁπάσαις τε ταῖς κουρίαις Ἥρᾳ τραπέζας ἔθετο Κυριτίᾳ λεγομένῃ, αἳ καὶ εἰς τόδε χρόνου κεῖνται. These mensæ of the Curiæ in the course of time probably came to be laid on the Kalends of the months. They might have been so from the first, on the first day of every month.

For first it must now be apparent that the name of Kalendæ must have been given to the first day of every month in strict accordance to the derivation of the term itself from *calo**, yet because of the old custom in question, as old as the origin of the calendar itself; that of *calling*, proclaiming and notifying, the approaching change of the moon on the first day of every month**.

Secondly it must now also appear that the name of Nonæ was given to the day of the month so called, agreeably to its most natural and proper etymology, from *novenus* (*nounus*), but not from *novus*; because the day so called in every instance stood at a certain distance from the Ides, the same in each instance; nine days if it was included itself, eight if it was left out: a distance not arbitrarily assumed, but determined by the nature of things; being the natural interval between the τριακὰς or ἕνη καὶ νέα, the last day of the old moon, and the διχότομος, or first quarter of the new: and consequently not less than nine days including the τριακὰς, nor less than eight, if it was omitted.

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* Varro, Fragmenta, 242: Itaque Kalendis kalabantur, id est vocabantur, et ab eo Kalendæ — Dionysius Hal. iv. 18, speaking of the Roman word *classis*: Ὃ γὰρ ἡμεῖς ῥῆμα προστακτικῶς σχηματίζοντες ἐκφέρομεν κάλει τοῦτ' ἐκεῖνοι λέγουσι κάλα. καὶ τὰς καλέσεις ἀρχαῖον ἐκάλουν κλάσεις— A. Gellius, xv. 27: In libro Lælii Felicis ad Q. Mucium primo scriptum est Labeonem scribere *calata* comitia esse quæ pro collegio Pontificum habentur, aut regis sacrorum aut flaminum inaugurandorum caussa: in either case, for an use and purpose of the most remote antiquity. Festus, ix. 183. 2: Incalationes, invocationes. incalative, vocative — xiv. 376. 1: Procalare, provocare, ex Græco καλεῖν, id est vocare. unde Kalendæ, calumnia, calones, caculæ, et calatores. Kalator or Calator, as the name of a particular officer in the service of some one or other of the sacred orders or colleges at Rome, was long retained. Suetonius, De Ill. Gramm. xii. 1: Cornelius Epicadius Lucii Cornelii Sullæ Dictatoris libertus, calatorque sacerdotio augurali — Gruter, cclv. 3: Kalatori Flaminum — Muratorius, clxxxviii. 1: Kalatori Sacerdotii Titialium. The order of domestic servants called nomenclatores derived its name from Nomen and Calator; quasi nominum calatores, that being their business; viz. to point people out to their masters by their names. Festus, iii. 62. 4: Calatores dicebantur servi, ἀπὸ τοῦ καλεῖν, quod est vocare, quia semper vocari possent ob necessitatem servitutis; a very mistaken explanation of the name, *calator* being one who *calls* not one who *is called*. The Curia Kalabra derived its name too from *calare* and *ber*; as we shall explain, we hope, elsewhere.

** This derivation of the term indeed would seem to have required *kalandæ* not *kalendæ*. Nor is it improbable, much less impossible, that the form of the word was originally *kalandæ*. It is always *kalendæ* in Latin writers; but in the best Greek writers it is uniformly καλάνδαι: not καλένδαι. Lydus, De Mensibus, iii. 7. 33. 16: Ὅτι δὲ ἐξ Ἑλληνικῆς σημασίας τίκτεται τὸ τῶν Καλανδῶν ὄνομα ἐξ αὐτῆς ἐστὶ λαβεῖν τῆς γραφῆς· ἔτι γὰρ καὶ νῦν τῷ Ἑλληνικῷ κάππα τὰς Καλάνδας γράφουσιν οἱ Ῥωμαῖοι.

Thirdly, it must now likewise appear that the name of Idus too might have been given to the day so called, in strict conformity to its verbal etymon, supposed to be *iduo* in the sense of dividing; as to the eighth day of the moon, according to the evidence of the senses, or to the usage of speech, every where; or, (in this case of the first lunar quarter in particular, which could not be less than seven days complete and part of an eighth in length,) according to the actual truth of things: since in that capacity and at that period of the lunation it did actually bisect or divide the moon. The only question which could be raised on this point would be Whether the Latin term Idus in this relation to the moon meant the same as the Greek διχότομος or as the Greek διχοτόμος; and in our opinion it meant the same as the latter. Διχότομος in Greek would be properly applicable only to the moon, as that which was so divided: διχοτόμος only to the day which divided it, that is, the *Luna octava*, the Idus.

Fourthly, it is observable of each of these terms alike that a plural termination is always given it, whether in Latin or in Greek; Kalendæ, Nonæ, Idus, i. e. Idueis: and yet in the common acceptation, and in the actual reference, of the terms themselves they are always understood of one day of the month in particular; the Kalendæ of the first, the Nonæ of the fifth or of the seventh, and the Idus of the eighth. There is no reason to suppose that these particular inflexions of the terms were not as old as the terms themselves, and were not handed down from their first institution; i. e. in fact from the origin of the calendar itself. Yet if that was the case, it seems to follow from it that, if these terms came to be treated *de facto* as nouns substantive and to be used absolutely, it must have been on the principle of *ellipsis;* and because they were originally nouns adjective, with a substantive expressed or understood, the same in every instance: which under the circumstances of the case it is easy to see must have been *dies.* And though the word *dies* in the Latin idiom of subsequent times in the plural number is restricted to the masculine gender; that would be no necessary proof that it was always masculine in the plural number: especially as it is feminine as well as masculine even at present in the singular number*.

The denominations in question then in each instance, expressed in full and with the addition of *dies,* would be Kalendæ, *dies Kalendæ;* Nonæ, *dies Nonæ;* Idus, *dies Idueis,* respectively: and it is manifest that as so expressed and so understood each of them must have stood for a term or complex of days; the first for the complex of days between the first of the month inclusive and the fifth in the *menses cavi,* the seventh in the *menses pleni*, exclusive, all meant by these *dies Kalendæ* in common: the second for the complex between the fifth in the *menses cavi*, the seventh in the *menses pleni*, inclusive, and the thirteenth in the former the fifteenth in the latter exclusive; all meant in like manner by the *dies Nonæ*: the third for the complex between the thirteenth in the *menses cavi* the fifteenth in the *menses pleni* inclusive, and the first of the ensuing month exclusive; all denoted under such circumstances by the *dies Idus* or *Idueis* alike.

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* This distinction of masculine only in the plural, and either masculine or feminine *ad libitum* in the singular, in this instance of *dies,* or in any other analogous instance, it is evident must have been arbitrary in its origin, and the effect of circumstances. We may take it for granted that at the earliest period in the history of the Roman language dies was either feminine in both numbers alike, or masculine in both alike. The genders of nouns in the Latin, or in any language like the Latin, were liable to vary with time; and masculines to become feminines, or feminines masculines. Cf. Festus, xvi. 426. 8–12. Recto fronte.

Asconius In Verrem ii. p. 25, 26 observes: Dies fœminino genere *tempus:* et ideo diminutive *diecula* dicitur, breve tempus et mora: dies horarum xii generis masculini. unde hodie dicimus, quasi hocdie. Cf. Servius, ad Æn. ii. 324: 554: v. 783. These examples, it appears to us, do not prove what Asconius intended to make out by them. *Hodie* or *hoc die* is the common mode of speaking for *the present time; diecula,* as a diminutive of dies, is a little day, a day if possible shorter than a day: in which relation and meaning it would naturally take its gender from that of dies.

As far as we have observed, in the simple and proper sense of a day (ἡμέρα in Greek) and not in the secondary and analogous one of *tempus* (*dies* in the abstract) it is more frequently used by the best writers in the Latin language as feminine than as masculine. And with regard to its gender in the plural number anciently, we have already quoted a gloss of Festus': Mercedonias—dixerunt a mercede solvenda. In which the ellipsis is evidently *dies,* and yet the adjective is feminine, Nor is there any various reading of Mercedonios in this instance. This term so used was probably very ancient. It proves consequently that *dies* in the plural was originally used as feminine.

Now this being the case, it serves to explain another peculiarity of the Roman calendar, which was no doubt as old as the calendar itself; we mean the mode of reckoning the days, peculiar to it, from the beginning to the end of the month: according to which there were three ἀρχαὶ as it were, in every month, and as many terminations, one for each ἀρχή; but in all the order of enumeration, from the proper beginning to the proper end of the division in each instance, was retrogressive or backwards, by constant subtraction; not progressive or forwards, by constant addition: first from the Kalendæ as one of these ἀρχαὶ, to the Nonæ; then from the Nonæ, as another, to the Idus; and lastly, from the Idus, as a third, to the Kalendæ of the next month.

The Roman writers of antiquity, being of course familiar with this idiom of their own calendar, when they came to be acquainted with the Greek rule of reckoning the days of the month, perceiving some resemblance between the two, appear to have concluded that the style of their own calendar was borrowed from that of the Grecian. But the analogy of the Greek to the Roman rule of reckoning the days of the month held only to a very limited extent; the Roman method pervading the *whole* of their month, the Grecian, so far as it resembled the Roman, only the last decad of their's. If this rule of their own calendar however was known or supposed to have been as old as Numa, it was very absurd in any of the Romans of antiquity to think of deriving it from the Greeks. They ought to have remembered that the Greek rule of reckoning in the last decad of the month in particular, (which only resembled their own,) had no existence even among the Greeks before the time of Solon; to whom the best informed of the Roman grammarians themselves attribute its introduction: and Solon (as the most superficial comparison of Roman and Greek chronology must have satisfied them) was at least a century later than Numa.

The Roman rule then in this respect was undoubtedly an original one; not borrowed from the Greeks at least. And it appears to us that we not only assign it its true date, but in all probability explain the principle or *rationale* of it also, when we trace it up to this distinction of Kalendæ, Nonæ, and Idus, with the ellipsis of dies, in each instance, first invented by Numa for the use of his own calendar, and first brought into being along with it. For if these distinctions were really intended for what we have supposed, (so many integral parts or divisions of the whole month, one following another in regular order, but so that the beginning of one should be the end of that which preceded it); it was the most natural course of proceeding imaginable,—it seems scarcely conceivable that it could have been ordered otherwise—that while the reckoning of the entire month was going on without interruption through each of these parts in succession, and in the ascending scale, that of each of these parts themselves should be going on along with it in the descending scale. We mean that, while the notation of time from the first day of the month to the fifth or the seventh, as the month was *cavus* or *plenus*, might be going on in the natural order, 1, 2, 3, &c., the notation of thus much of the month, as the particular interval from the Kalendæ to the Nonæ, must be going on in the retrograde order, 7, 6, 5, &c. or 5, 4, 3, &c. as the Nonæ were *Septimanæ* or *Quintanæ*: and for *this* reason, because the whole of this interval was one complex of days, to all of which the name of Kalendæ, with a special reference to the Nonæ, (dies Kalendæ down to the Nonæ,) was applicable alike; in reckoning which consequently from the first of the number to the last, from the Kalendæ to the Pridie Nonas, the course of proceeding must be by continually abstracting unity from the sum of the complex, which in the nature of things must be greatest at the beginning, not at the end, of the division itself.

According to such a rule of reckoning then as this, in the first of these sections of the month, (the interval from the Kalendæ to the Nonæ,) while the days of the month ran on from the first to the fifth or to the seventh; those of the section itself must proceed in the opposite order, from the seventh or from the fifth to the first: and so in each of the other two divisions, from the Nonæ to the Idus, and from the Idus to the Kalendæ again, respectively. The type then of any one of Numa's months, whether *cavus* or *plenus*, digested on such a principle as this, into three distinct parts or sections, each with a nomenclature and each with a style or mode of reckoning of its own, as well for each of these divisions as for the whole month, will stand as follows.

Type of the notation of days in the months of Numa, whether cavi *or* pleni; *and of their component parts.*

Dies.	Mensis Cavus.	
1	Kalendæ	v
2	iv Nonas	iv
3	iii —	iii
4	ii or Pridie	ii
5	Nonæ	i
	———	—
6	viii Idus	viii
7	vii —	vii
8	vi —	vi
9	v —	v
10	iv —	iv
11	iii —	iii
12	ii or Pridie	ii
13	Idus	i
	———	—
14	xvii Kal.	xvi
15	xvi —	xv
16	xv —	xiv
17	xiv —	xiii
18	xiii —	xii
19	xii —	xi
20	xi —	x
21	x —	ix
22	ix —	viii
23	viii —	vii
24	vii —	vi
25	vi —	v
26	v —	iv
27	iv —	iii
28	iii —	ii
29	ii or Pridie	i

Dies.	Mensis Plenus.	
1	Kalendæ	vii
2	vi Nonas	vi
3	v —	v
4	iv —	iv
5	iii —	iii
6	ii or Pridie	ii
7	Nonæ	i
	———	—
8	viii Idus	viii
9	vii —	vii
10	vi —	vi
11	v —	v
12	iv —	iv
13	iii —	iii
14	ii or Pridie	ii
15	Idus	i
	———	—
16	xvii Kal.	xvi
17	xvi —	xv
18	xv —	xiv
19	xiv —	xiii
20	xiii —	xii
21	xii —	xi
22	xi —	x
23	x —	ix
24	ix —	viii
25	viii —	vii
26	vii —	vi
27	vi —	v
28	v —	iv
29	iv —	iii
30	iii —	ii
31	ii or Pridie	i

SECTION XVI.—*Testimonies of antiquity to the division of the months in the Roman Calendar.*

It may be proper at this period of our inquiries to introduce the testimonies of antiquity to the above points; the divisions of the months in the Roman calendar, and the names of those divisions. Some of these will be seen to agree with our conclusions, and to confirm them as effectually as we could desire; others may appear to be at variance with them: but at the same time they will be seen to be in error themselves, and to be founded on false principles and assumptions. The reader however will now be able to draw the necessary distinctions, and to separate what is true in such statements from what is false, for himself.

i. Ἐν μηνὶ Μαΐῳ, ταῖς καλουμέναις Ἰδοῖς, διχομηνίδα βουλόμενοι ταύτην εἶναι τὴν ἡμέραν[y]—Τῇ νέᾳ σελήνῃ, ἣν Ἕλληνες μὲν νουμηνίαν Ῥωμαῖοι δὲ Καλάνδας καλοῦσιν[z]—Εἰδοῖς Μαΐαις· ἦγον δὲ τοὺς μῆνας κατὰ σελήνην, καὶ συνέπιπτεν εἰς τὰς Εἰδοὺς ἡ πανσέληνος[a]—Τὰς νουμηνίας οἱ Ῥωμαῖοι Καλάνδας καλοῦσι, τὰς δὲ διχοτόμους Νούνας, τὰς δὲ πανσελήνους Εἰδούς[b].

ii. Εἰδοῖς . . . ὃ συντυγχάνει περὶ τὴν πανσέληνον μάλιστα[c]—Τοῦ Μαρτίου μηνὸς μάλιστα μεσοῦντος· Εἰδοὺς Μαρτίας τὴν ἡμέραν Ῥωμαῖοι καλοῦσιν[d]—Ἐν ἡμέραις αἷς καλοῦσιν Εἰδοῖς Μαρτίαις, Ἀνθεστηριῶνος μάλιστα μέσου[e].

iii. Διὰ τί τρεῖς τοῦ μηνὸς ἀρχὰς (καὶ) προθεσμίας ἔχουσιν, οὐ ταὐτὸ διάστημα τῶν ἡμερῶν μεταξὺ λαμβάνοντες; πότερον, ὡς οἱ περὶ τὸν Ἰόβαν ἱστοροῦσιν, ὅτι ταῖς Καλάνδαις ἐκάλουν τὸν δῆμον οἱ ἄρχοντες, καὶ κατήγγελλον εἰς πέμπτην τὰς Νόννας· Εἰδοῦς δὲ ἡμέραν ἱερὰν ἐνόμιζον; ἢ μᾶλλον ὅτι ταῖς τῆς σελήνης διαφοραῖς ὁρίζοντες τὸν χρόνον ἑώρων ἐν τρισὶ γινομένην διαφοραῖς τὴν σελήνην κατὰ μῆνα ταῖς μεγίσταις; πρώτῃ μὲν ὅτε κρύπτεται σύνοδον ποιησαμένη πρὸς ἥλιον· δευτέρᾳ δὲ ὅταν ἐκφυγοῦσα τὰς αὐγὰς τοῦ ἡλίου καταφανὴς πρῶτον ἐπὶ δυσμῶν γένηται· τρίτῃ δὲ τῇ περὶ τὴν πλήρωσιν αὐτῆς πανσελήνου γενομένης. ὀνομάζουσι (δὲ) τὸν μὲν ἀφανισμὸν αὐτῆς καὶ τὴν κρύψιν Καλάνδας ὅτι καὶ τὸ κρύφα καὶ λάθρα κλὰμ, καὶ κηλᾶρε τὸ λανθάνειν, τὴν δὲ πρώτην φάσιν Νόννας

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[y] Dionysius, Hal. i. 38.

[z] Ibid. viii. 55.

[a] Ibid. x. 59.

[b] Ibid. xvi. 6.

[c] Plutarch, Poplicola, xiv. Cf. Camillus, xix.

[d] Ibid. Brutus, xiv.

[e] Appian, Bell. Civ. ii. cxlix.

τῷ δικαιοτάτῳ τῶν ὀνομάτων, νουμηνίαν οὖσαν· καὶ γὰρ αὐτοὶ νέον τὸ καινὸν ὥσπερ ἡμεῖς προσαγορεύουσιν· τὰς δ' Εἰδοὺς ἢ διὰ τὸ κάλλος καὶ τὸ εἶδος, ὁλοκλήρου καθισταμένης τῆς σελήνης, ἢ τῷ Διὶ τὴν ἐπωνυμίαν ἀποδιδόντες. οὐ δεῖ δὲ τῶν ἡμερῶν τὸν ἀκριβέστατον ἀριθμὸν διώκειν οὐδὲ τῷ παρ' ὀλίγον συκοφαντεῖν, ὅτε καὶ νῦν ἐπίδοσιν τοσαύτην ἀστρολογίας ἐχούσης περιγίνεται τῆς ἐμπειρίας τῶν μαθηματικῶν ἡ τῆς κινήσεως ἀνωμαλία[f]—Διὰ τί τὴν μετὰ Καλάνδας ἡμέραν καὶ Νόννας καὶ Εἰδοὺς ἀνέξοδον καὶ ἀνεκδήμητον τίθενται; . . . . διὸ καὶ Νόνναι μὲν ἐπιβάλλουσι διὰ πέμπτης Καλάνδαις Νόνναις δ' Εἰδοὶ διὰ ἐνάτης[g].

iv. Πρώτη τοίνυν τοῦ μηνὸς ἑορτή ἐστιν ἡ λεγομένη παρὰ μὲν Ῥωμαίοις Καλάνδαι παρὰ δὲ Ἕλλησι νουμηνία. Καλάνδας δὲ αὐτὰς οἱ παλαιοὶ προσηγόρευσαν ἐξ Ἑλληνικῆς σημασίας, ἀπὸ τοῦ καλεῖν τὸν ἀρχιερέα τὴν βουλὴν ἐν τῇ λεγομένῃ Καλαβρᾷ βασιλικῇ, καὶ σημαίνειν εἴτε χρὴ κατὰ τὴν πεμπταίαν εἴτε κατὰ τὴν διχότομον τῆς σελήνης ἐπιτελέσαι τὴν τῶν Νωνῶν ἑορτήν, ἐξ ἧς τὴν μεσομηνίαν ἐπετήρουν. ἐπὶ μὲν γὰρ τῶν μηνῶν, τῶν ἔτι καὶ νῦν τὰς σεληνιακὰς σωζόντων ἑορτὰς, πεμπταίας τὰς νώνας ἐσήμαινε, καθ' ἃς ἐπὶ τῆς τρισκαιδεκάτης κ̀, τ. λ. οὗτος οὖν ὁ ἀριθμὸς (sc. 13) ἡ μεγίστη καὶ τελειοτάτη τῶν ἑορτῶν γέγονε τοῖς ἀρχαίοις ἐπιτήρησις. ἡ γὰρ πεντεκαιδεκάτη παρὰ μοιρὰς ἓξ κυρίως ἐστὶν ἡ μεσομηνία . . . ὅθεν καὶ Διὸς αὐτὴν ἑορτὴν οἷον ἡλίου νενομίκασι, δι' οὗ σύμφαμεν φωτίζεσθαι τὴν σελήνην. ἐπὶ δὲ τῶν ἡλιακῶν ἑβδομαίας τὰς Νώνας ἐσήμαινον κ̀, τ. λ. πρώτη τοίνυν ἡ νουμηνία, ἐξ ἧς ἔθος Ῥωμαίοις προκαλεῖν τὴν δευτέραν ἑορτὴν τουτέστι τὰς Νώνας. εἰσὶ δὲ μέσαι ἀπὸ τῆς νουμηνίας ἄχρι τῶν Νωνῶν ἢ τέσσαρες ἢ ἕξ, ὡς γίγνεσθαι τὰς πάσας σὺν καὶ αὐτῇ τῇ νουμηνίᾳ ἢ πέντε ἢ ἑπτά. εἴ τις οὖν ἀπὸ τῆς πεμπταίας καὶ αὐτῆς ἐννέα προσεπιλογίσεται ἡμέρας (αὕτη δὲ ἡ προσθήκη παρὰ Ῥωμαίοις Νῶναι καλεῖται ἀντὶ τοῦ ἐννέα, τοσαῦται γάρ εἰσιν,) εὑρήσει τὴν ἐκ μικρᾶς σεληνιακῆς ἀποκατάστασιν μέσην, τουτέστι τὴν τρισκαιδεκάτην. οὕτως καὶ ἐπὶ τῆς ἑβδομαίας μετ' αὐτῆς ἀριθμῶν τὰς ἐννέα εὑρήσει τὴν τοῦ φωτὸς μεσομηνίαν, τουτέστι τὴν πεντεκαιδεκάτην . . ἰστέον δὲ ὅτι αἱ Καλάνδαι Ἥρας ἑορταὶ ἐτύγχανον, τουτέστι σελήνης . . . τὸ δὲ τῶν Εἰδῶν ὄνομα παρὰ μὲν τοῖς πολιτικοῖς ἐκ τοῦ εἴδους τῆς σελήνης, παρὰ δὲ τοῖς ἱερεῦσιν ἀπὸ θυσίας τρόπου, εὑρίσκομεν εἰσενηνεγμένον[h].

v. Ἐῶ Κάλανδον, Νόννον τε, καὶ τὸν Εἰδὸν σὺν τούτῳ
ὧνπερ τὸ εὐεργέτημα ἡμέραις παρεγράφη.
ἐν χρόνοις Ἀντωνίνου γὰρ Ῥωμαίων ἡττηθέντων

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[f] Plutarch, Quæstiones Romanæ, xxiv.

[g] Ibid. xxv.

[h] Lydus, De Mensibus, iii. 7. 32. l. 1: cf. 9. 37. 16: iv. 36. 71. l. 14.

καὶ συγκλεισθέντων ἐν αὐτῇ τῇ γεραιτέρᾳ Ῥώμῃ,
κινδυνευόντων τε λιμῷ πάντων διαφθαρῆναι·
οὗτοι τὸν δῆμον οἴκοθεν ἔτρεφον τὸν τῆς Ῥώμης,
ἡμέρας ὀκτωκαίδεκα Κάλανδος κατὰ μῆνα,
Νόννος ἡμέρας δὲ ὀκτὼ, τὰς τέσσαρας Εἶδὸς δέ.
Ἡσύχιος Ἰλλούστριος Πλούταρχός τε καὶ Δίων
Καὶ Διονύσιος ὁμοῦ γράφουσι ταῦτα πάντα [i].

vi. Nonas quidam a nova luna, quod in eas concurreret principium lunæ. alii quod semper ante diem Iduum nonum essent, scribique ideo debere primam adpellationis ejus syllabam adjecta v littera[k]: i. e. Nounas, not Nonas. Cf. No. i.

vii. Primi dies mensium nominati Kalendæ, ab eo quod heis diebus kalentur ejus mensis Nonæ a pontificibus quintanæne an septimanæ sint futuræ, in Capitolio in curia Calabra; sic dictæ: Quinque kalo Juno novella, Septem kalo Juno novella[l]. Nonæ appellatæ aut quod ante diem nonum Eidus semper, aut quod, ut novus annus Kalendæ Januariæ ab novo sole adpellatæ, novus mensis nova luna Noneis. eodem die enim in urbem ab agreis ad regem conveniebat populus. harum rerum vestigia apparent in sacreis nonalibus in arce: quod tunc ferias primas menstruas quæ futuræ sint eo mense rex prædicit populo[l]. Eidus ab eo quod Tusci Itus vel potius quod Sabini Eidus dicunt. dies postridie Kalendas, Nonas, Eidus appellati atri, quod per eos dies novi inciperent[m].

viii. Omnibus tamen mensibus ex die Nonarum Idus nono die repræsentari placuit; et inter Idus ac sequentes Kalendas constitutum est sedecim dies esse numerandos. . . . priscis ergo temporibus, antequam Fasti a Cn. Flavio scriba invitis patribus in omnium notitiam proderentur, pontifici minori hæc provincia delegabatur, ut novæ lunæ primum observaret aspectum, visamque regi sacrificulo nunciaret. itaque sacrificio a rege et minore pontifice celebrato idem pontifex, calata id est vocata in capitolium plebe, juxta curiam Calabram quæ casæ Romuli proxima est, quot numero dies a Kalendis ad Nonas superessent pronuntiabat: et quintanas quidem dicto quinquies verbo καλῶ septimanas repetito septies prædicabat. verbum autem καλῶ Græcum est, id est voco: et hunc diem qui ex his diebus primus esset placuit Kalendas vocari. hinc et ipsi curiæ ad quam vocabantur Calabræ nomen datum est. ideo autem minor pontifex numerum dierum qui ad Nonas superessent calando prodebat, quod post novam lunam oportebat Nonarum die populares qui in agris essent confluere in urbem, accepturos caussas feriarum a rege sacrorum, sciturosque quid esset eo mense faciendum. unde quidam hinc Nonas æstimant dictas quasi novæ initium observationis; vel quod ab eo die semper ad Idus novem dies putantur . . . Iduum porro nomen a Tuscis, apud quos is dies Itis vocatur, sumtum est. *Item* autem alii interpretantur *Jovis fiduciam* . . . unde et omnes Idus Jovis ferias observandas sanxit antiquitas. alii putant *Idus*, quod ea die plena luna videatur, a videndo *vidus* appellatas; mox litteram v detractam: sicut contra quod Græci *ἰδεῖν* dicunt nos v littera addita *videre* dicimus. nonnullis placet *Idus* dictas vocabulo Græco, *οἶον ἀπὸ τοῦ εἴδους*, quod eo die plenam speciem luna demonstret. sunt qui existiment *Idus* ab ove *iduli* dictas quam hoc nomine vocant Tusci; et omnibus Idibus Jovi immolatur a flamine. nobis illa ratio nominis vero propior existimatur ut Idus vocemus diem qui dividit mensem. *iduare* enim Etrusca lingua *dividere* est; unde *vidua* quasi *valde idua* id est *valde divisa*; aut *vidua* id est a viro *divisa*[n].

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[i] Tzetzes, Chilias iii. 849. Histor. 102–111.

[k] Festus, xii. 281. 12. Nonas.

[l] Cf. De Lingua Latina, iv. 54.

[m] Varro, De Lingua Lat. v. 58, 59.

ix. Kalendas autem Nonas et Idus propter festos dies Romani instituerunt, vel propter officia magistratuum. in iis enim diebus conveniebatur in urbibus. quidam autem Kalendas a *colendo* appellari existimant. apud veteres enim omnium mensium principia colebantur: sicut et apud Hebræos. Idus autem plerique Latinorum ab *edendo* dictas putant*,

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* There were certainly epulæ in the Roman calendar, attached to the Ides of the month: as the Ides of September, (Capranican and Antiatine Kal. apud Foggini,) and the Ides of November (Maff. and Antiatine. and Kal. Rusticum apud Gruter.) The Jovis epulum too was properly meant on such days. Arnobius, vii. 238: Jovis epulum cras est. Festus, iii. 130. 6: Epulonos dicebant antiqui quos nunc Epulones dicimus. datum autem est his nomen quod epulas indicendi Jovi ceterisque

[n] Macrobius, Saturnalia, i. 15. 272, 273. It might have been added, as the probable explanation of this word *iduo* itself, that it was derived from *in* and *duo*, quasi *induare*, to make any thing into two, i. e. to *divide* or *bisect* it.

quod ii dies apud veteres epularum essent. Nonæ a Nundinis vocatæ. Nundinæ enim sunt publicæ conventiones sive mercimonia[o].

x. Bis senas anno reparat Lucina Kalendas,
Et totidem medias dat currere Jupiter Idus,
Nonarumque diem faciunt infra octo secundi.
Hæc sunt Romano tantum tria nomina mensi.
Cetera per numeros sunt cognomenta dierum[p].

SECTION XVII.—*Confirmation of the Lunar character of the* Nonæ *and of the* Idus *in the Calendar of Numa, by distinct proofs.*

i. It is mentioned by Cicero as an ancient custom, peculiar to the college of Augurs at Rome, that they were once in the habit of meeting every month on the Nonæ. Et in Persis augurantur et divinant Magi; qui congregantur in fano commentandi caussa atque inter se colloquendi: quod etiam idem vos quondam facere Nonis solebatis[q]. Cicero and his brother Quintus are the only speakers in this dialogue; and the latter is here addressing the former, who was himself at this time a member of the college of Augurs. The same custom is recognized in the dialogue De Amicitia[r]; and at the assumed date of that dialogue, B. C. 129, not long after the death of Scipio Africanus the younger, though alluded to by Quintus in the dialogue De Divinatione as obsolete in his time, it is spoken of as still kept up.

The college of Augurs at Rome, according to Dionysius[s], was founded by Numa; but the truth appears to be that it was not founded by him, only enlarged; and perhaps placed on a new footing[t]. It is extremely probable *a priori*, though

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diis potestatem haberent. We feel however that to the classical reader some apology is due for quoting such explanations as these, or those which we produced *supra* from Tzetzes. Nor should we have done so, except to shew how little was really known about them even in the time of Isidore, cir. A. D. 640, and much less in that of Tzetzes, the 12th or 13th century.

[o] Isidore, Origines, v. 33. 41 D. Cf. De Natura Rerum, iv. 247.

[p] Ausonius, Eclogæ, 379 De tribus menstruis. These three principal divisions of the month, the Kalendæ, Nonæ, and Idus, were recognized even by the sumptuary laws of the Romans, as days on which a little more expence than usual was to be allowed. Cf. A. Gellius, ii. 24.

[q] De Divinatione, i. 41.

[r] Cap. 2.

[s] Supra, 172 note.

[t] Cicero, De Republica, ii. 62. He added two to the preexisting numbers of the college of Augurs. The science

we cannot insist upon it as a certain fact, that this monthly meeting of the college came to be held as early as the institution of the calendar, with its distinctions and divisions of Kalendæ, Nonæ, and Idus; and that it was purposely fixed to the Nonæ, because that was the stated calendar date of the last day of the lunar month: just as among the Greeks sometimes the numeniæ sometimes the τριακάδες are seen to have been selected, as the stated dates of similar meetings.

ii. On what principle too but this of their being the stated date of the τριακὰς, and consequently of an invisible state of the moon, shall we account for the fact that though the Nonæ were as leading a division of the month as either the Kalendæ or the Idus; they were sacred to no deity, as the Kalendæ and the Idus were? An invisible phasis of the moon could not with propriety be consecrated to any divinity. The Kalendæ and the Idus, on the principles of the calendar, were necessarily visible states of the moon; and therefore might be so consecrated. This appears to us to be the true reason of the distinction in question. The Nonæ were left originally without any tutelary deity: and no doubt on purpose. In the course of time and in particular instances they might acquire a relation of that kind, but only as the effect of circumstances; and it might still be observed with truth even in Ovid's time,

Nonarum tutela deo caret*:

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* It appears indeed from Varro, De Lingua Lat. iv. 54 and 58, that there were certain ceremonies on the Nones of the months, which he calls the Sacra Nonalia. But this does not imply that the Nones were under a particular Tutela. As a general rule, the Nones in the Roman calendar all round the year want any distinctive ceremony. The Ludi Apollinares indeed in July began on the Nones of that month; but they were of recent institution in comparison of the antiquity of Numa. The Sacrum Semoni Sanco also fell on the Nones of June: Ovid, Fasti, vi. 213. Cf. Dionysius, ix. 60. The Nonæ Decembres too were sacred to Faunus, as we learn from Horace, iii. 18. 5: Ad Faunum.

Si tener pleno cadit hœdus anno,
Larga nec desunt Veneris sodali
Vina crateri, vetus ara multo
Fumat odore;

of Augury was of course older than the Foundation. Rome itself was founded Augusto augurio, as Ennius exprest it. Numa himself was inaugurated with their ceremonies. Cf. Livy, i. 18. Dionysius, i. 60. Plutarch, Numa, vii. The science was borrowed by the Romans from the Etrurians.

which could not have been said of the Kalendæ, and possibly not of the Idus, even from the first*.

Ludit herboso pecus omne campo,
Cum tibi Nonæ redeunt Decembres,
Festus in pratis vacat otioso
Cum bove pagus.

On which the Scholiast: Nonis autem Decembribus Faunalia festa et sacra celebrabantur. Yet this day is not marked as sacred to Faunus, in the extant remains of the Julian calendar for the month of December: and Ovid has the Fauni Sacrum on the Ides of February; Fasti, ii. 193. Cf. Livy, xxxiii. 42: xxxiv. 53.

* It is one of Plutarch's Quæstiones Romanæ[1] Why the year was sacred to Jupiter, and the months to Juno? Servius observes, ad Virgil. Eclog. i. 44: Bissenos cui nostra dies altaria fumant—Id est, principia mensium, vel Idus omnium mensium; those being the two most sacred days in the month. In like manner, ad Æn. vi. 37. he observes, Item lectum est deos aliquotiens tantum Kalendis aliquotiens tantum Idibus vaticinari. Tertullian observes in his own time[2], Moratur Dei ancilla cum laribus alienis, et inter illos omnibus honoribus dæmonum, omnibus sollemnibus regum, incipiente anno incipiente mense nidore thuris agitabitur: which implies that there were stated services still on the first of every month. The sacredness of the Kalendæ to Juno is attested by Lydus[3]; and that of the Idus to Jupiter[4]. The sacrifice to Jupiter on the Idus of January, (the first which could be noticed in the Roman year in his time,) is noticed by Ovid[5].

Idibus in magni castus Jovis æde sacerdos
Semimaris flammis viscera libat ovis.

There were exceptions however to both these rules, as the Fasti of Ovid, or the inspection of the remains of the Roman calendar, apud Foggini, all round the year will shew; in the consecration of the Kalends, or of the Ides, in particular instances, to objects of worship distinct from Juno or Jupiter. The Kalends of January were sacred to Æsculapius; the Kalends of March to Mars: the Kalends of April to Venus*; the Kalends of June to the Dea Carna: and so on. The Ides of February were sacred to Faunus.

Idibus agrestis fumant altaria Fauni
Hic ubi discretas insula rumpit aquas[6].

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[1] lxxvii.

[2] iii. 97. ad Uxorem, ii. 6.

[3] De Mensibus, iii. 7. 33. 19: iv. 29. 68. 10: 57. 92. 10: cf. 45. 80. 12–19.

[4] iii. 7. 32. 17: iv. 36. 71. 14.

[5] Fasti, i. 587.

* Ingerat Aprilis† Iole tibi, tundat Amycle
Natalem Maiis idibus esse tuam.
Propertius, iv. v. 35.

† Id est kalendas.

[6] Ovid, Fasti, ii. 193.

iii. There was a very ancient and a very curious ceremony in the Roman calendar; which went by the name of the October equus. We could not stop to explain this at present, without entering upon the question of the date of the capture of Troy; which must necessarily be reserved for the illustration of the Hellenic Calendar. The form however in which this date was handed down, rightly understood, was

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The Idus of March to Anna Perenna[7]. The Idus of May to Mercury[8].

Maiæ Mercurium creastis Idus[9].

The Idus of June were the Quinquatrus Minores[10]. The Idus of July from the date of the battle of the lake Regillus at least were sacred to the Dioscuri[11]. The Idus of August were sacred to Diana.

Augustis redit Idibus Diana[12].

Æterno regni signatur nomine mensis
Latonæ genitam quo perhibent Hecaten[13].

Et medias Idus Maii Augustique recursu
Quas sibi Mercurius quasque Diana dicat[14].

Sexta tibi hæc primo remeat trieteris ab anno
Septembres notis referens natalibus Idus.
Idus alma dies, geniis quoque culta deorum.
Sextiles Hecate Latonia vendicat Idus,
Mercurius Maias: superorum adjunctus honori
Octobres olim genitus Maro dedicat Idus.
Idus sæpe colas bissenis mensibus omnes
Ausonii quicunque mei celebraveris Idus[15].

Tempus erat cœli cum torrentissimus axis
Incumbit terris, ictusque Hyperione multo
Acer anhelantes incendit Sirius agros.
Jamque dies aderat profugis cum regibus aptum
Fumat Aricinum Triviæ nemus, et face multa
Conscius Hippolyti splendet lacus, ipsa coronat
Emeritos Diana canes, et spicula tergit,
Et tutas sinit ire feras, omnisque pudicis
Itala terra focis Hecatæas excolit Idus[16].

[7] See supra p. 96.

[8] Ovid, Fasti, v. 603. 621. 663–670.

[9] Martial, Epigr. xii. 68. 1.

[10] Ovid, Fasti, vi. 651. Varro, De Lingua Latina, v. 56: Festus, xi. 243. 7: Minusculæ.

[11] Plutarch, Coriolanus, iii.

[12] Martial, Epigr. xii. 68. 2.

[13] Ausonius, Tetrasticha De Mensibus.

[14] Ibid. De Feriis Romanis, 385.

[15] Edyllia, v. Genethliacon ad Ausonium Nepotem, 323. 20.

[16] Statius, Sylvæ, iii. 1. 52. Cf. Etymologicum M. 'Αμφιφῶν.

that of the Octava luna. The stated date of this ceremony in the Roman calendar was the Idus of October; and the connection of the ceremony in its origin with the old historical tradition of the capture of Troy by means of the Wooden horse yet on the *Luna octava* being admitted; it follows that the Idus in the Roman month, to which this ceremony was attached, were the seat of the *Luna octava*; that is of the first dichotomy.

iv. But the strongest confirmation of the lunar character of each of these days, the Nonæ and the Idus, in the calendar of Numa from the first, (i. e. what particular lunar date they were intended and expected to represent from the first, in terms of the calendar at least,) is the matter of fact itself, B. C. 712, at the epoch of the correction of Numa; when the Nonæ actually fell on the τριακὰς, and the Idus actually on the first dichotomy or *luna octava*. There was a solar eclipse, according to Pingrè, March 24, at 6 45 P. M. Paris, B. C. 712, of which we might make use for the proof of this fact; or we might calculate the first new moon in the calendar of Numa B. C. 712 for ourselves: but it will answer the same purpose, and save us any further trouble, if we avail ourselves of the calculation of the new moon of April, B. C. 750, already proposed supra[u]; for all that we want is a correct expression of the mean new moon of March, B. C. 712: and that may be obtained from the above calculation as follows.

			h.	m.	s.	
Mean new moon B. C. 750,	April	24.	1	16	42	mean time Greenwich.
				+ 49	49	
	April	24.	2	6	31	mean time Rome.
Subtract 38 years recession[w]			−3			
Mean new moon B. C. 712,	April	23.	23	6	31	mean time Rome.
Subtract one lunation		−29	12	44	3	
Mean new moon,	March	25.	10	22	28	mean time.
Add one quarter[x]		+ 7.	9	11	1	
First dichotomy,	April	1.	19	33	29	mean time.
Subtract one lunation		−29	12	44	3	
First dichotomy,	March	3.	6	49	26	

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[u] Page 115.

[w] Fasti Catholici, Introduction, Part iii. ch. 1. sect. xii. Table xxiv. Part ii. Page lxxv.

[x] Ibid. Table xxv. Page lxxvi.

The kalends of Januarius in the first year of the first cycle of Numa, B. C. 712, bearing date February 17 at midnight; the kalends of Martius bore date March 18 at midnight, and consequently the Nones of March on March 24 at midnight, (the lunar τριακὰς,) and the Ides of Martius on April 1 at midnight; i.e. on the *luna octava*, the first dichotomy of the true mean new moon of this month. The Ides of Januarius indeed, the preceding month, must have fallen on March 1 at midnight, two days before the first dichotomy of the mean new moon of that month, March 3 at midnight. But it should be remembered that the first month in the cycle of Numa was a *mensis cavus;* and the actual coincidence of the civil dichotomy with the mean, on the principles of his cycle, was not possible, and therefore was not to be looked for, in the *menses cavi:* only, if at all, in the *menses pleni*. And this coincidence we observe did hold good, and to the utmost extent for which it could have been expected to do so, in the first instance of the kind; that of the first *mensis plenus* in his cycle, the civil dichotomy of his first Martius: which was absolutely the same with the true lunar dichotomy of the mean new moon of the same month.

SECTION XVIII.—*On the Lunar relation or Lunar character of the* Kalendæ *in the Calendar of Numa.*

We think then that enough has now been done to establish *this* conclusion, with all the consequences deducible from it; viz. That the name of Idus was given to the thirteenth day of the month in the *menses cavi*, and to the fifteenth in the *menses pleni*, of the calendar of Numa, because it was intended to denote by this day and by the name of this day in both alike the civil date of the first dichotomy; the seat of the *luna octava*, of the first half moon, or the first lunar quadrature.

It follows that the eighth day before this day, the day called Postridie Nonas, the sixth of the month in the *menses cavi*, the eighth in the *menses pleni*, must have been the civil date of the *numenia;* and the Nonæ themselves, the fifth day in the *menses cavi*, the seventh in the *menses pleni*, must have been the civil date of the τριακὰς or ἔνη καὶ νέα. But what, it may be asked, were the Kalendæ, or first day in every month? We answer Both in the *menses cavi* and in the *menses pleni* they were the civil date of the second dichotomy, the second half moon, the fourth quadrature. This is confirmed i. by the interval in days between the Idus, the date of the first dichotomy, in one month and the Kalendæ in the next; which was sixteen in every month, (February only for special reasons being excepted,) whether *cavus* or *plenus*, alike: that is, two lunar quarters of eight days each. Consequently, if the Idus was the date of the last day of the first quarter, the day before the Kalendæ must have been that of the last day of the third quarter, and the Kalendæ must have been that of the first day of the fourth.

ii. By the interval in days between the Nonæ exclusive in one month and the Kalendæ exclusive in the next which was 24, or three lunar quarters of eight days each complete, both in the *menses cavi* and in the *menses pleni* alike. Consequently, if the Nonæ was the calendar date of the τριακὰς or last date of one moon, the Kalendæ must have been the calendar date of the 25th day of the next; i. e. of the first day of the fourth quarter.

It follows that the lunar character of the Kalendæ in the calendar of Numa from the beginning to the end of his year must have been 25; that is, the first day of every one of his months, whether *cavus* or *plenus*, must have been supposed to fall on the 25th day of the moon. It would be a necessary consequence of this fact, and of the standing length of his *menses cavi* as 29 days by hypothesis, and of that of his *menses pleni* as 31 days by hypothesis also; that the civil τριακὰς in the months of the former standard would fall on the 5th day of the month, the 29th luna, and in those of the latter on the 7th, the 31st luna: which explains the reason why his *menses cavi* had their Nones *quintanas*, and his *menses pleni* had their's *septimanas*; yet both alike denoted the civil τριακὰς or last day of the moon.

Lastly, it appears from this account that the lunar epochs, more particularly regarded in the calendar of Numa, were the end of the first quarter represented by the Idus, the end of the fourth represented by the Nonæ, and the beginning of the fourth represented by the Kalendæ. The beginning or the end of the second quarter, and the beginning or the end of the third, had no distinction assigned them in his calendar. The full moon consequently had no place or prominency in his calendar; nor the beginning of the third quarter, when the moon, returning from the full to the change, is still in possession of all its light. It is difficult to say whether these distinctions, though true *de facto*, were the effect of design or of accidental circumstances. In point of fact, it is clear that the only phases of the moon, properly so called, regarded by Numa were the two dichotomies; the beginning of the second quarter and that of the fourth respectively. And it must be confessed that, next to the full moon, the two most prominent features in the face of the moon are the two διχοτομίαι; or rather, that while the full, as something always the same and incapable of change or contrast, and something total and complete in itself, can scarcely be called a phasis of the moon at all; the two διχοτομίαι are the phases properly so called: the first and most obvious division of which is into the appearance of the moon half way from the change to the full and half way from the full to the change respectively: that is, the half moon as such—but not the same half; not the same dark and the same enlightened half of the moon in each instance. Perhaps however the true reasons of these distinctions in the calendar of Numa are to be ultimately sought for in something older than his calendar, yet closely connected with it; the more ancient Nundinal calendar, and its characteristic peculiarities: of which possibly we shall know more hereafter.

It is certain at least that among the ancient Romans, either because these two phases only were recognized in the calendar of Numa, or because of some traditionary and prescriptive distinction of this kind with which they were familiar, or for both reasons at once, the only received division of the lunar orb appears to have been into these two; the moon of the second quarter, and the moon of the fourth. Dies lunares quoque observandi, says Varro [z], qui quodammodo bipartiti: quod nova luna crescit ad plenam, et inde rursus ad novam lunam decrescit quoad veniat ad intermen-

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[z] De Re Rustica, lib. i. cap. xxxvii.

struum; e quo die dicitur luna esse extrema et prima: a quo eum diem Athenis appellant *ἕνην καὶ νέαν, τριακάδα* alii. quædam faciunda in agris potius crescente luna quam senescente; quædam contra quæ metas, ut frumenta et cæduam sylvam. ego ista etiam inquit Agrasius non solum in ovibus tondendis, sed in meo capillo a patre acceptum, servo, ni decrescente luna tondens calvus fiam. Agrius: Quemadmodum inquit luna quadripartita? et quid ea divisio ad agros pollet? Tremellius: Numquid rure audisti inquit octavo Janam, et crescentem et contra senescentem? et (si) quæ crescente luna fieri oporteret (et) tamen quædam melius fieri post octavo Janam quam ante? et si quæ senescente fieri conveniret melius quanto minus ignis haberet id astrum? This *Octavo Jana crescens* and *Octavo Jana senescens* expresses the first dichotomy and the second dichotomy, the Ides of the month and the Kalends, respectively; and as no divisions but these are thus specified as entering into the rustic calendar, or rustic reckoning, we may presume that by the country people at least from time immemorial none else could have been particularly regarded.

Section XIX.—*On the supposed preference of the odd to the even number by Numa.*

From these explanations of the structure of the calendar of Numa it is evident also that it furnishes no ground for acquiescing in the common opinion of that preference of the odd to the even number, which has been supposed to characterize it, and to have influenced Numa expressly in arranging it. This opinion is repeatedly to be met with in Roman authors: Imparem numerum antiqui prosperiorem hominibus esse crediderunt[a]. And the moderns have borrowed it from the ancients: but it does not appear to have had any foundation, either anciently or at present, but the imagined acquaintance of Numa with the Pythagorean philosophy; which did certainly lay great stress on the power of numbers, and did certainly attach this notion of superior virtue and efficacy to the odd above the even number.

The better informed of the Romans themselves were well aware that to make Numa contemporary with Pythagoras was subversive of all chronology[b]. Livy therefore makes Pythagoras at least 100 years later than Numa, and a contemporary of Servius Tullius[c]; though even that assigns him too high a date, unless it be understood of the very end of the reign of Servius. Cicero on the contrary observes[d]: Nam quartum jam annum regnante Lucio Tarquinio Superbo Sybarim et Crotonem et in eas Italiæ partes Pythagoras venisse reperitur. Olympias enim secunda et sexagesima eadem Superbi regni initium et Pythagoræ declarat adventum. ex quo intelligi regiis annis dinumeratis potest anno fere centesimo et quadragesimo post mortem Numæ primum Italiam Pythagoram adtigisse: neque hoc inter eos qui diligentissime persecuti sunt temporum annales ulla est unquam in dubitatione versatum.

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[a] Festus, ix. 180. 7. Imparem.

The beginning of the reign of Tarquinius Superbus is truly to be dated (as Cicero here supposes) about Olymp. 62. 1. B.C. 532: and consequently the arrival of Pythagoras in Italy, B. C. 529. This gives the death of Numa, according to Cicero's authorities, B. C. 669; and if he reigned 42 or 43 years, that would date his accession very nearly as we have assigned it B. C. 712 or 713.

Be this as it may; the foundation of the supposed acquaintance of Numa with Pythagoras is cut away, if his calendar exhibits no traces of the Pythagorean preference of the uneven to the even number, which he has been supposed to have entertained. And as the assumption of Numa's acquaintance with Pythagoras is ultimately resolvable into this unfounded notion; one of the strongest arguments against the belief of his actual existence in his proper order of time, (to which this imaginary acquaintance has always appeared an insuperable objection,) is removed also *.

* It cannot indeed be denied that many of the institutions of Numa had a Pythagorean character, as the ancients remark; and seemed to breathe the spirit of that school of philosophy in particular. It would not however be difficult to shew of these, if it were necessary, that they

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[b] Cicero, De Oratore, ii. 37: Tusculanæ, i. 16. iv. 1, 2: cf. i. 1, 2: v. 3. Pliny, H. N. ii. 6. 208. Solinus, xi. § 31. Dionys. Hal. ii. 59. Plutarch, Numa, i. viii. xxii.

[c] i. 18.

[d] De Republica, ii.

CHAPTER III.

On the Cycle of the Calendar of Numa.

SECTION I.—*Testimonies.*

It appears from Livy and Macrobius that the cycle of the calendar of Numa was an Εἰκοσιτετραετηρὶς, a 24 years' cycle.

i. Atque omnium primum ad cursum lunæ in duodecim menses describit annum: quem (quia tricenos dies singulis mensibus luna non explet, desuntque dies solido anno qui solstitiali circumagitur orbe) interkalaribus mensibus interponendis ita dispensavit, ut quarto et vigesimo anno ad metam eamdem solis unde orsi essent plenis annorum omnium spatiis dies congruerent [e].

ii. Cum ergo Romani ex hac distributione Pompilii ad lunæ cursum sicut Græci annum proprium computarent; necessario et interkalarem mensem instituerunt more Græcorum. nam et Græci, cum animadverterent temere se trecentis quinquaginta quatuor diebus ordinasse annum, (quo-

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were such as involved the first principles of morality, or of natural theology, or of natural philosophy: and that there was nothing of that kind in the political or religious institutions of Numa which might not be ascribed either to the general simplicity of the times in which he lived, or to his own disposition and character, or to his superior knowledge and more correct ideas on many important points.

On the other hand there were many things in his ritual, as such, decidedly opposed to the principles and practice of the school of Pythagoras. The Pythagoreans abstained from beans. Numa made it a point of religion both to eat and to sacrifice them, on one day in his year, in particular; the Kalendæ Fabariæ (June 1 Roman) the Sacrum Deæ Carnæ. The Pythagoreans abstained from animal food, and revolted in an especial manner from the taking away of life, and from the shedding of blood, even in sacrifice. There was not a month in the Roman calendar in which there was not one or more sacrifices of Numa's appointment; in which blood was not repeatedly to be shed: sometimes that of several animals at once, as in the *suovetaurilia;* sometimes that of two or more living animals in one, as in the sacrifices prescribed to be made *sue prægnante,* or with cows in calf.

[e] Livy, i. 19.

niam appareret de solis cursu qui trecentis sexaginta quinque diebus et quadrante zodiacum conficit deesse anno suo undecim dies et quadrantem,) interkalares stata ratione commenti sunt: ita ut octavo quoque anno nonaginta dies, ex quibus tres menses tricenûm dierum composuerunt, interkalarent. id Græci fecerunt quoniam erat operosum atque difficile omnibus annis undecim dies et quadrantem interkalare. itaque maluerunt hunc numerum octies multiplicare, et nonaginta dies, qui nascerentur si quadrans cum diebus undecim octies componatur, inserere in tres menses, ut diximus, distribuendos. hos dies ὑπερβαίνοντας menses vero ἐμβολίμους adpellitabant.

Hunc ergo ordinem Romanis quoque imitari placuit; sed frustra: quippe fugit eos unum diem, sicut supra admonuimus, additum a se ad Græcum numerum in honorem imparis numeri. ea re per octennium convenire numerus atque ordo non poterat. sed nondum hoc errore comperto, per octo annos nonaginta quasi superfundendos Græcorum exemplo computabant dies; alternisque annis binos et vicenos alternis ternos et vicenos interkalares expensabant, interkalationibus quatuor. sed octavo quoque anno interkalantes (*corrige* interkalantibus, *vel dele*) octo adfluebant dies ex singulis quibus vertentis anni numerum apud Romanos supra Græcum abundasse jam diximus. hoc quoque errore jam cognito, hæc species emendationis inducta est. *Tertio quoque octennio ita interkalandos dispensabant dies ut non nonaginta sed sexaginta sex interkalarent;* compensatis viginti quatuor diebus pro illis qui per totidem annos supra Græcorum numerum creverant[f].

In the first of these passages there is a various reading of *vigesimo quoque*, instead of *quarto et vigesimo;* which being admitted as the true reading would make the cycle of Numa, according to Livy, one of 20 years, not of 24. His editors however are unanimous in adopting that which we have exhibited; and though it is certainly possible that even Livy himself might have conceived a mistaken idea of the cycle of Numa, yet since the true length of that cycle is represented by the received reading only, in our opinion it is much more probable that the text of Livy in reading *vigesimo quoque anno* for *quarto et vigesimo anno* must have been accidentally corrupted, than that he himself, on a point of so much notoriety even in his own time as this of the length of the cycle of the old Roman calendar, could have been misinformed and mistaken.

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[f] Macrobius, Saturnalia, i. 13. 264.

As to the testimony of Macrobius, allowance being made for the erroneous impression under which he laboured first about the rule or process of the intercalations in the Greek octaëteris, secondly about the derivation of the Roman rule from the Greek, and thirdly about the preference of the odd to the even number in the administration of the Roman calendar; it must be admitted that, from whatsoever quarter he derived his information, the account which he has given of the cycle of Numa, especially in what relates to the œconomy of the last of its octenniums, is wonderfully just and true; and agreeable both to every thing which has already been concluded concerning it, and, (as we trust it will appear by and by,) to every thing which has yet to be established concerning it.

The following then is the Type, Exemplar, or Scheme of this cycle, for all and singular its Εἰκοσιτετραετηρίδες or Periods of 24 years, which is ultimately to be proposed as the result of our investigations.

SECTION II.—*Perpetual Type of the* Εἰκοσιτετραετηρὶς *of Numa, epoch, the Kalendæ Januariæ at midnight,* U.C. 42 *of Varro, February* 17 *at midnight,* B. C. 712.

Through the first four Cycles of 24 years, or the first Nundinal Period of 96 years.

Εἰκοσιτετραετηρὶς of Numa.

Epoch, February 17 B. C. 712.

Cycle.	Number of days in the year.	Lunar Epacts.	Kalendæ Januariæ—in the Julian year.	Nundinal Character	Nundinal Epact	Nundinal Character	Nundinal Epact	Nundinal Character	Nundinal Epact	Nundinal Character	Nundinal Epact
				Per. i. Cyc. i.		Per. i. Cyc. ii.		Per. i. Cyc. iii.		Per. i. Cyc. iv.	
i	355	25	February 17	5	3	7	3	1	3	3	3
ii*	377	26	.. 7	2	1	4	1	6	1	8	1
iii	355	19	.. 19	1	3	3	3	5	3	7	3
iv	378	20	.. 9	6	2	8	2	2	2	4	2
v	355	14	February 21	4	3	6	3	8	3	2	3
vi*	377	15	.. 11	1	1	3	1	5	1	7	1
vii	355	8	.. 23	8	3	2	3	4	3	6	3
viii	378	9	.. 13	5	2	7	2	1	2	3	2
ix	355	3	February 25	3	3	5	3	7	3	1	3
x*	377	4	.. 15	8	1	2	1	4	1	6	1
xi	355	27	.. 27	7	3	1	3	3	3	5	3
xii	378	28	.. 17	4	2	6	2	8	2	2	2
xiii	355	22	March 1	2	3	4	3	6	3	8	3
xiv*	377	23	February 19	7	1	1	1	3	1	5	1
xv	355	16	March 3	6	3	8	3	2	3	4	3
xvi	378	17	February 21	3	2	5	2	7	2	1	2
xvii	355	11	March 5	1	3	3	3	5	3	7	3
xviii*	377	12	February 23	6	1	8	1	2	1	4	1
xix	355	5	March 7	5	3	7	3	1	3	3	3
*xx	355	6	February 25	2	3	4	3	6	3	8	3
xxi*	377	7	February 14	7	1	1	1	3	1	5	1
xxii	355	30	.. 26	6	3	8	3	2	3	4	3
xxiii	355	1	.. 16	3	3	5	3	7	3	1	3
xxiv	377	2	.. 6	8	1	2	1	4	1	6	1

8 766. Sum of days collected at the end of the cycle.

Explanation of the above Type, in each of its component parts.

In the above Type of the cycle in question it will readily be understood that, with the exception of the Nundinal characters, every thing is of stated and perpetual recurrence, exactly after the same order, every 24 years complete. By the Nundinal characters we mean the first day in the first month of every year of the cycle, (which is of course the month Januarius,) on which the Nundinal day falls. That is, the Nundinal character is the Nundinal feria of the Kalendæ Januariæ perpetually. In like manner, the Nundinal epact, which accompanies this Nundinal character in the Type perpetually, is the number of days remaining over and above the last Nundinal day in the given year of the cycle, to the end of that year itself. The cycle of the Nundinal character was a Period of 96 years; as may thus be shewn.

The number of days in one cycle of Numa, as the scheme shews, was 8 766. The number of Orbes Nundinales (cycles of eight days) was consequently 1 095, with a remainder or epact of *six*. The number of days in two cycles was 17 532; the number of Orbes Nundinales was 2 191, with an epact of *four*. The number of days in three cycles was 26 298; the number of Nundinal cycles was 3 287, with an epact of *two*. The number of days in *four* cycles was 35 064; the number of Nundinal cycles was 4 383; with no remainder or epact at all. The Nundinal character therefore of the first year of the first cycle of Numa would be found to have come round again in the first year of the fifth; but not sooner. While his cycle consequently, in all other respects, was a period of 24 years; in the Nundinal character in particular it was one of 96 years. To proceed however with the details of our proposed explanation.

i. The first column of the Type exhibits the years of the cycle, both the common years and the intercalary. The asterisk attached to the years of the cycle on the right distinguishes these intercalary years from the common ones. The asterisk prefixed to every fourth year of the cycle on the left is intended to shew that that year in each instance coincided with the fourth year of the Julian cycle of leap year; i. e. with the Julian leap year: a coincidence necessarily resulting from the fact that the epoch, February 17, B. C. 712, happened to fall in the first year of the cycle of leap year; that is, at the *end* of the first year of the cycle, supposed to be dated from March 1 at midnight perpetually.

ii. The second column exhibits the sum of the days in each year of the cycle, whether common or intercalary; and if intercalary, according as the intercalary month was one of 22 days or one of 23 days. In the common years the sum of days was 355; in intercalary years of the former kind it was 377; in those of the latter it was 378. The order and length and seat of the intercalary months, through the first two ogdoads, (i. e. the first sixteen years of the cycle,) after what has been premised in explanation of the intercalary rule, cannot be doubtful. Through each of these ogdoads the intercalary years were the even years of the cycle; i. e. one every other year: the length of the intercalary month was alternately 22 and 23 days; its seat was in February, after the 23d, at the end of the year.

But with respect to the last octennium, the rule of intercalation which must have been *de facto* observed at first sight is not so obvious. All that was necessary in this octennium being that 66 days should be intercalated, and in three equal proportions of 22 days each; though the number and length of the actual intercalations in the last eight years of the cycle could not admit of a question, the place and order of each might still be doubtful. Three intercalary months alone of 22 days each were admissible into these last eight years; but in what order at first sight would not appear: and it is evident that various orders might have been observed *de facto*, and yet the end proposed might have been answered by each.

It happens fortunately therefore that the rule, which we have proposed as the actual one of the last ogdoad of the cycle of Numa in this respect, is ascertained by that of the Decemviral correction of the calendar of Numa in the same part of the cycle also. The intercalary months in the last ogdoad of the Decemviral calendar are determined by actual instances of such months in terms of that calendar, still on record; and from the nature of the rule which is thus seen to have been observed in the last eight years of the Decemviral correction we can infer with certainty the similar rule which must have been observed through the same part of the cycle in the calendar of Numa. It is demonstrable at least from the intercalary rule of the Decemviral cycle that the last year of the cycle of Numa must have been intercalary; and that point being ascertained, the place of *one* (and that the last) of the *three* intercalations, which only had admission in the last eight years of his cycle, is established thereby. The third or last again being determined to the 24th year of the cycle, it becomes on every account a probable conjecture that the first must have stood at the same distance from the second as the second from the third; that the proper seat of the first intercalation in the last eight years of Numa's cycle must have been the 18th year, and that of the second the 21st. And the last eight years of the Decemviral cycle being compared with the last eight of that of Numa prove that this must actually have been the case.

It appears then that as far as the first intercalation in the last ogdoad, the ninth in the whole cycle until then, the old rule of intercalating in the even years, and with a Merkedonius first of 22 and then of 23 days, must have continued to be observed: but that after this first the rule for that period of the entire cycle must have been changed. The seat of the second intercalation in the last ogdoad, the tenth in all, was an uneven year, the 21st of the cycle; while in the third and last of the same ogdoad, the eleventh in the cycle from first to last, the 24th year of the period, it was again restored: and between the first of these two last intercalations and the first in this ogdoad respectively, and between these two, the interval was three years complete, whereas in every other instance it was only two.

The reason of this change, with the light reflected upon it by the explanation of Macrobius, must be evident. The inspection of the type itself will shew that the Kalendæ Januariæ, setting out from their proper and primary epoch, Feb. 17, gradually advanced upon it at the rate of eight days for one ogdoad, which was at the average rate of one day every year, and of two days every other year; viz. ist from Feb. 17, the epoch of the first ogdoad, to Feb. 25 that of the second, in the ninth year of the cycle; and iidly from Feb. 25 the epoch of the second ogdoad to March 5 that of the third, in the seventeenth year of the cycle: and iiidly from March 5 the epoch of the seventeenth year to March 7 that of the nineteenth. But here the advance of the Kalendæ Januariæ on the epoch of origination attained to its maximum. The change of the rule of intercalation, affecting both the intercalary year and the length of the intercalary month, which now began to operate, brought back the Kalendæ Januariæ in the fifth year of this ogdoad, the 21st of the cycle, from March 7th to Feb. 14th; and in the eighth year of the ogdoad the 24th of the cycle from February 14 to February 6. And this 24th year being intercalary, but the amount of the intercalation being only 22 days; the excess of this last year of the cycle, (=377 days,) over the corresponding Julian year which was always the Julian leap year, (=366 days,) was only eleven days: so that the Kalendæ Januariæ the next year, i. e. in the first year of the next cycle, would be found advanced from Feb. 6 to Feb. 17, but no further. That is, at the end of the 24th year, the cycle would be found to have returned to the epoch of origination; and to be ready to begin and to go through the same process again for another 24 years.

iii. The third column exhibits the lunar characters of the different years of the cycle, as referrible to the standard of the octaëteris. It has been seen indeed that the lunar character of every year of the cycle of Numa was one and the same, viz. 25; that is, that the age of the moon on the Kalendæ Januariæ in every year (as in fact on the first day of every month in every year) of the cycle was supposed to be 25 days. At the epoch of his correction, Feb. 17 B. C. 712, it was actually 25, or might reasonably be supposed to have been so; and on the principles of his calendar, the length of his mean lunation and the number of days in his mean lunar year being each assumed accordingly, it must have been considered the same ever after also. The lunar character both of his cycle in general, and of the years of his cycle and of the months of his years in particular, was something invariable, and the same in each.

These assumptions however were manifestly only hypothetically true. They could not actually hold good after the first year or even after the first two months of his cycle. As to succeeding years; if the first year consisted of 355 days and the corresponding lunar year only of 354; though the moon's age at the beginning of that year had been truly 25, at the beginning of the next it must have been 26. On the same principle, if it was 26 at the beginning of this second year, yet this year being intercalary and containing 377 days, at the beginning of the third year it must have been 23 days more than 26; that is, one entire lunation of 30 days being cast off, it must have been 19 at the beginning of this third year. And so on, in every other year all round the cycle.

It is therefore the object of this third column of the Type to shew the true age of the moon on the Kalendæ Januariæ in every year of the cycle, on the principles of the octaëteris; in which every mean lunar year of twelve civil lunations should be reckoned at 354 days perpetually. Whether such a column actually entered into the constitution of Numa's calendar, and was actually proposed along with it, is another question. It might have done so, or it might not. We have given it a place in the Type because the octaëteris was the standard to which the lunar cycle of Numa itself was ultimately to be referred. We need not however remind the reader[g] that even the octaëteris after a time would not have been an accurate criterion of the moon's age except in terms of the civil calendar; and therefore that this third column in our Type would not be competent to answer its purpose of a true standard of the lunar reckoning for more than eight years in sequence, if for so many. It is however a more exact criterion of the moon's age at the beginning of every year than Numa's own; which was perpetually 25, but could be truly 25, if at all, only once in 24 years. Besides, whatsoever the principles and assumptions of the octaëteris might be, and whatsoever the kind or degree of the error involved therein, they might be just as deliberately taken for granted by Numa in the Roman calendar as by Solon in the Greek; and the error to which they were liable might be just as knowingly dissembled in the former as in the latter. For these reasons we have thought it adviseable to incorporate this column with the rest of the cycle. It must be considered the standard of the mean lunar momenta ultimately recognized by Numa; and must be taken along with his own hypothetical and positive standard as the means of redressing and rectifying it, on *his* principles, perpetually.

iv. The fourth column exhibits the Kalendæ Januariæ of the different years of the cycle, in terms of the proleptical Julian year corresponding to each. It has been already observed that the cycle of Numa took its rise in the first year of the Julian cycle of leap year, supposed to bear date perpetually on the first of March, immediately after February 29; but in the first year *exeunte*. The fourth year of his cycle was consequently the Julian leap year; and there were six such leap years in each of his cycles, the sixth being the last year of the cycle itself. Whether any form of the Julian year actually existing at this time, (as the Sothiacal B.C. 1350[h], or the Olympic of Pelops B.C. 1260[i],) was known to Numa, in the absence of positive testimony we do not undertake to say. That the principle of the Julian year in the abstract must have been known to him we cannot hesitate to affirm. His own cycle itself is demonstrative of *thus* much; that he must have been aware of the mean length of the solar or natural year which is assumed as the basis of the Julian cycle of leap year; and that the solar standard even of his own cycle was ultimately adapted to that, and to none else.

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[g] Fasti Catholici, i. 103. Diss. iii. ch. iii. sect. iv: 564—570. Diss. vii. ch. iii. sect. v. i—vi.

v. The remaining eight columns of the Type exhibit the Nundinal characters and the Nundinal epacts for the different years of the cycle, through the whole of one Nundinal Period of four cycles, or 96 years. The Nundinal epacts in one of these cycles are of course the same in every other. The Nundinal characters in one are not the same as those in another. They can recur only every four cycles, or 96 years, asunder. But to this subject we shall have occasion to refer again, when we come to treat of the Nundinal cycle.

SECTION III.—*General observations on the Cycle of Numa.*

It appears then that every cycle of Numa contained 8 766 days. Now 24 mean Julian years, or three octaëteric cycles each of them containing just 2 922 days, consist of 8 766 days also. Consequently one cycle of Numa was exactly equal to 24 mean Julian years, and to three octaëteric cycles.

It follows therefore that the mean standard of the solar year, which entered ultimately into the cycle of Numa, must have been that of the Julian, 365 days 6 hours; and the mean standard of the lunar which entered it also must have been that of the octaëteris, 354 days. It turns out consequently that neither the lunar standard apparently assumed by him, 355 days, nor the solar apparently assumed also, 366 days 6 hours, was the real standard recognized by him at bottom; but only an hypothetical or positive one of its kind, purposely assumed for a particular reason*. He gave a day to the lunar year, more than he knew the truth to require, and therefore a day more to the solar; to preserve the same proportion between them: or *vice versa*, he gave a day more to the solar year, and therefore a day more to the lunar. But each of these was just as much adapted to the other, as if both had agreed with the truth; for a mean lunar year of 355 days bears the same proportion to a mean solar one of 366 days 6 hours, as the mean lunar year of 354 days to the mean solar one of 365 days 6 hours.

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[h] Fasti Catholici, i. 553. Diss. vii. ch. ii. sect. iii.

[i] Ibid. 554.

The εἰκοσιτετραετηρὶς of Numa therefore, considered as a lunæsolar cycle in general, was a modification of the first the oldest and the simplest of the cycles of that description, the octaëteric[k]: and it may be mentioned as a curious coincidence, (though doubtless the effect of circumstances only, not of design,) that the first octaëteric cycle, actually substituted for the primitive equable year, among the Greeks also, the octaëteris of Solon, bore date just five cycles of Numa's Εἰκοστετραετηρὶς, or 120 years, after his. The epoch of the first cycle of Solon was January 19 B. C. 592; that of the sixth of Numa was February 17 B. C. 592 also: and the first of Anthesterion in the former, and the Kalendæ Januariæ in the latter, that year were absolutely one and the same. The Greeks appear to have been the first to discover the principle of the octaëteris; but Numa appears to have been the first who actually applied it to the correction of the primitive equable year.

Hence, if Numa constructed his calendar on any other principles than those of the simple octaëteris, it seems only a reasonable inference from these premises that he must have done so deliberately. The actual reasons which might have induced him to depart from those principles in appearance, even while he was adhering to them in reality, it may not be possible at this distance of time to divine; yet we are inclined to believe that there was nothing recondite in them, nor any affectation of mystery: but that in all probability, as he had found a lunar year, (that of Romulus,) already in use and already familiar to his subjects, though he might not approve of it in all respects, yet he did not think proper to discard it altogether or to remodel it on principles totally different from its own. While therefore he retained its most peculiar and characteristic features, (which were the length of its *menses cavi*, 29 days, and that of its *menses pleni*, 31 days, and its cycle of the Nundinal day,) he determined to bring it as near to the truth and to the standard of the octaëteris as the circumstances of the case would allow of. And the lunar standard of the existing calendar being thus retained; as a natural consequence of that determination, the solar standard of his own was increased in a certain proportion.

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* It is mentioned by Censorinus, De Die Natali, xix. that the length of the natural year, according to Ennius, was 366 days; and that would be explained by the fact that such was its length apparently in the cycle of Numa.

[k] See our Fasti Catholici, i. 103. Diss. iii. ch. iii. sect. iv: 565. Diss. vii. ch. iii. sect. v. i: 569. sect. v. v.

One thing at least may be inferred with every appearance of probability from the œconomy of his calendar; viz. that the ἀποκατάστασις of the lunar and solar momenta, one in terms of the other, proposed by him, could not have been annual, but cyclical or periodical. A civil or nominal ἀποκατάστασις was brought about every year; but a *bona fide* and actual one, on the principles of the octaëteris, only once in 24 years. Hence, no doubt, it was a significant circumstance that the lunar character of all his months was the same with that of all his years; and the lunar character of both was the same with that of his cycle itself: viz. in each case 25.

Under these circumstances, his calendar could scarcely be considered either properly a lunar one, or properly a solar one, or properly even a lunæsolar one; except in the result and effect brought about by it in the whole of every cycle. We saw that the details of his years were adjusted from first to last on the principle of compensation for excesses deliberately admitted in one part by defects deliberately allowed of in another; and it is evident that the same principle pervaded his cycle: in which the abstraction of 24 days in the last eight years made amends for the excess of 24 days, (generated in the two preceding octenniums and in this last,) over and above the standard of the octaëteris. It is impossible to account for such coincidences as these, on any rational principle but that of design.

A cycle indeed, which was neither lunar nor solar nor lunæsolar, except periodically, would not have answered the purpose of the Greeks; with whom it was an article of religion and a point of conscience that, while their civil year preserved externally the appearance of being conformed to the sun, it should be regulated internally by the moon: but there is no reason why such a year might not have suited the views of Numa, especially for the use of his subjects, who had long been accustomed to a form of the civil year which professed to be lunar, but agreed even less with the moon than it did with the sun; the ancient Nundinal year. The octaëteris on the other hand which entered this cycle of Numa was always true to the sun; as true at least as the mean Julian year itself: and this cycle of Numa, being ultimately founded on the octaëteris and *mutatis mutandis* being the same with it, was as true to the moon as the octaëteris at least.

On the whole then, though no one could pretend at present to divine all the reasons which must actually have influenced Numa to make choice of so peculiar a cycle as this; yet thus much is evident from the analysis and explanation of the cycle itself: viz. that it was constructed in perfect conformity to its own assumptions, peculiar as they were, and that its parts and details were critically adapted to one another. It was competent to answer in practice every purpose which could have been contemplated by any civil and artificial measure of noctidiurnal and annual time; and both in the conception and in the execution, both in its outline and in its details, it was a singular monument of the skill and ingenuity of its author: which possibly not even his contemporaries might be able fully to appreciate, much less the Romans of after times, down to the date of the Julian correction. The author of such a calendar at least must have been as well informed in the science of time as Julius Cæsar himself; and we may safely venture to say that if his calendar had continued in use, exactly in the state in which it proceeded from him, down to the time of Julius Cæsar, we should never have had the Julian correction[l]*.

SECTION IV.—*On the relation of the Calendar of Numa to that of Romulus.*

The connection of the calendar of Numa with that of Romulus at first was twofold; first, and certainly, through the cycle of the Nundinal day; the epoch of which in the year of Numa, as we hope to shew hereafter, was taken directly from the Nundinal year of Romulus. Secondly, though not so certainly, through the coincidence of the first Kalendæ Januariæ in the calendar of Numa with the first of the eighth month, the first of October, in the current Nundinal year of Romulus. On the supposition advanced above[m], that the first six months of the Nundinal year of Romulus consisted of 31 and 29 days alternately, and the last four of 32 and 30; it may be shewn that this must actually have been the case. The calendar of Romulus in the 46th Nundinal year, which entered on the first of Martius, July 20 B. C. 713, down to February 17 B. C. 712 stood as follows.

* Had Scaliger too been aware of the true nature of the old Roman calendar, (that which the Romans derived from Numa,) he would have seen that there was little foundation for the observation which occurs in his work De Emendatione, ii. 187 C: Ut non semel miratus sim orbis terrarum dominam gentem quæ generi humano leges dabat sibi unam legem anni ordinati statuere non potuisse; ut post hominum memoriam nulla gens in terris ineptiore anni forma usa sit. The ancient Romans did not deserve this reproach. It was not ignorance or stupidity which made them prefer a worse form of the year to a better. We shall see hereafter that they knew what they were doing, even when they discarded the cycle of Numa; and whatsoever we may think of the grounds of their decision, we cannot deny that they had their reasons for it, and such reasons too as in their own opinion were sufficient to justify what they did.

[l] See our Fasti Catholici, ii. 36. sqq. Diss. ix. ch. ii. sect. ii.

[m] Page 156.

Calendar of Romulus.

Cycle viii. 4.

Month.	At Midnight.		
i	Martius 31	July 20	B. C. 713
ii	Aprilis 29	August 20	..
iii	Maius 31	September 18	..
iv	Junius 29	October 19	..
v	Quinctilis 31	November 17	..
vi	Sextilis 29	December 18	..
vii	September 32	January 16	B. C. 712
viii	October 30	February 17	..

We thus see that the first day of the eighth month in the current Nundinal year, Cycle viii. 4, and the Kalendæ Januariæ in the first year of the first cycle of Numa would meet together on February 17 at midnight B. C. 712.

SECTION V.—*On the relation of the year of Numa to the Primitive Equable year.*

The relation of the year of Numa to the Primitive equable year at the first institution has been demonstrated in various ways; by the coincidence of the first Kalendæ Januariæ in his calendar with the primitive Thoth, B.C. 712; by the seat of the Terminalia in his year, answering to the 30th of Mesore in the Primitive; by the five supernumerary days of his year after the Terminalia, corresponding to the five epagomenæ of the Primitive; and by the date of the Palilia and of the Urbis Natalis in his first year and by the date of the birthday of Numa himself in the Primitive year, which met together B. C. 712.

Such being the relation of his calendar to the Primitive at first, it would continue to preserve that relation to it *mutatis mutandis* perpetually; i. e. the head of the calendar of Numa in the first year of its proper cycle continuing fixed to February 17, but the head of the Primitive equable year being liable to recede upon that day perpetually, and one of Numa's cycles being exactly equal to 24 mean or actual Julian years; the head of the Primitive year would fall back on the epoch of the calendar of Numa just at the same rate in the same time as on any other date in the mean or actual Julian year. Hence, if the primitive Thoth was coinciding with the Kalendæ Januariæ of Numa B. C. 712, then after the lapse of five cycles of Numa, or 120 of his years, the primitive Phaophi, not the primitive Thoth, would now be coinciding with the Kalendæ Januariæ of Numa in the same year of the cycle as at first. In short as the primitive Thoth in the Æra of Nabonassar would recede in the mean Julian year one equable month of 30 days in 120 Julian years; so would it in the calendar of Numa in five of its proper cycles: and that would be at the rate of six days every cycle, or (what comes to the same thing) every 24 Julian years. Hence, at the intermediate stages of the period of recession, that is, at the beginning of each of the five cycles in question, the relations of the two years one to the other, in the first instance of the kind, would require to be represented as follows.

Recession of the Primitive equable year, in the Æra of Nabonassar, on the Kalendæ Januariæ of Numa, through the first period of 120 *years, or five cycles of* 24 *years each, in the Calendar of Numa.*

Cycle i.	B. C.	Kalendæ Jan.	Æra of Nab.	At Midnight.	
i	712	February 17	36	Thoth 1	February 17
ii	688	.. ..	60	.. 7	.. ..
iii	664	.. ..	84	.. 13	.. ..
iv	640	.. ..	108	.. 19	.. ..
v	616	.. ..	132	.. 25	.. ..
vi	592	February 17	156	Phaophi 1	February 17

SECTION VI.—*General confirmation of the Calendar of Numa by the proof of its relations to the natural year.*

The proper confirmation of the above account of the calendar of Numa by historical dates, or by testimonies and proofs of any other description than those which are derivable from its relations to the natural year, is reserved for a future opportunity. But before we take our leave of this subject for the present, we propose to illustrate the truth of the above account by one or two instances of those relations of Numa's calendar, as originally constituted; which every one must allow to be an argument and proof of the truth of our account of it, as proper to be insisted on, and as convincing, as any. The examples of the relations in question may be taken i. From the Epoch of the calendar itself: ii. From the seat of Aprilis in the calendar: iii. From the dates of certain Feasts, the institution of which is to be traced up to Numa, and therefore was as old as his calendar itself.

i. *From the Epoch of the Calendar.*

By the Julian correction the beginning of the civil year at Rome was fixed very much in the same way relatively to the natural as the beginning of the Gregorian year by the Gregorian correction; i. e. the first day of the civil year was left by each of those corrections as nearly as possible the same number of days distant from the same cardinal point in the natural year, the winter solstice. And this was the place in the natural year which it was occupying in the time of Ovid. Yet Ovid himself in his Fasti expresses his surprise at it, as contrary to the reason of things; contending that the natural beginning of the civil year, as after all only the antitype and representative of the natural, was not the winter but the spring. Hence the inquiry which he puts to his Janus at the beginning of his account of the month of Januarius[n].

> Dic age frigoribus quare novus incipit annus,
>   Qui melius per ver incipiendus erat.
> Omnia tunc florent: tunc est nova temporis ætas:
>   Et nova de gravido palmite gemma tumet:
> Et modo formatis amicitur vitibus arbos:
>   Prodit et in summum seminis herba solum:
> Et tepidum volucres concentibus aëra mulcent:
>   Ludit et in pratis luxuriatque pecus.
> Tum blandi soles: ignotaque prodit hirundo;
>   Et luteum celsa de trabe fingit opus.
> Tum patitur cultus ager et renovatur aratro—
>   Hæc anni novitas jure vocanda fuit.

The images brought together in this description are characteristic of spring; but of spring at its first appearance, and in its first effects: of the *ver novum*, not of the *ver adultum*, much less of the *ver præceps*. They would apply to the civil year, as it stood in the time of Ovid relatively to the natural, only from the middle of its second month. Now it might be an accidental circumstance that at the time of the correction of the calendar by Numa the head of the primitive year was falling on February 17; and therefore an accidental circumstance that the first Kalendæ Januariæ in his calendar were fixed to that day too. But the effect of the coincidence was that the epoch of his cycle and the beginning of his year had a place thereby assigned them as nearly as possible midway between the winter solstice and the vernal equinox. For the mean vernal equinox B.C. 712, for the meridian of Rome, was falling March 30, and the true March 28: and the mean winter solstice was falling December 29, the true December 28. The extreme limits of Numa's Januarius were February 6 and March 7; its normal or proper date was February 17, 50 days after December 29, 51 after December 28; and 39 days before March 28, 41 before March 30.

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[n] Fasti, i. 149.

The common sense of mankind, the same observation of the course and succession of natural annual time, and the same tradition respecting the actual beginning of annual civil time, as the substitute for, and representative of, annual natural, in the spring[o], seem to have pointed out to the reformers of the calendar every where, the fitness and propriety of attaching the epoch of their respective corrections, whensoever it was possible, to the spring. The beginning of spring however varies for different climates. Among the Greeks, from the time of Homer downwards, observation appears to have attached it to the *Ζεφύρου πνοὴ* or Flatus Favonii; a well known term in all the Greek Parapegmata of antiquity: which later observations, as a general rule, appear to have fixed every year to the middle of the interval between the winter solstice and the vernal equinox; 45 days after the one and 45 days before the other. With respect to the regularity of this natural phenomenon and its stated date, there was not much difference between the climate of Italy and that of Greece; nor between the assumptions of the Roman Parapegmata and those of the Greek. At almost all periods then of the history of the world it might be assumed that the beginning of spring for the climate of Rome coincided with the middle of the interval between the winter solstice and the vernal equinox. In the time of Numa the length of the winter quarter was about 90 days 18 hours[p]. The 45th day from the mean winter solstice would fall on February 11, only 6 days earlier than the rectified date of his Januarius, February 17; and in the sixth year of his cycle the date of his Januarius itself. It is selfevident therefore that nothing could approach more closely to a coincidence than the beginning of *his* year and the beginning of the *natural*, dated from the early spring: under which circumstances the question which Ovid puts to his Janus, howsoever pertinent and natural with reference to the civil year of his own time, must have been superfluous of such a civil year as Numa's.

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[o] See our Fasti Catholici, ii. 67—124. Diss. ix. ch. iv: iii. 253. Diss. xv. ch. iii. sect. iii: 306—324. ibid. sect. ix. x.

ii. *From the place of Aprilis in the Calendar of Numa.*

The name of the month of Aprilis having been retained in the calendar of Numa, it must have been considered as applicable to the site of this month in his calendar as to its site in that of Romulus; though the Aprilis of Numa was the *third* month in his calendar, and the Aprilis of Romulus was the *second* in his. In the calendar of Romulus however every month was liable to be carried backwards through the seasons of the natural year at a very rapid rate; and the position of any one relatively to a fixed point in the natural year must vary 61 or 62 days in defect with successive years. Hence, if the name of Aprilis was given to the second month in the calendar of Romulus because of some special regard to the import of the name, as the opening, the teeming, the parturient month; it must have been given it out of respect to the place in the natural year which it was occupying *de facto* at the time, though it could not occupy it perpetually: or on the supposition that as once attached by its name to that season it was to be considered virtually restricted to it ever after; or because the Nundinal cycle of six years of its own denomination, in constant comparison with the equable period of five years, might be regarded and treated as one period, or even as one year, at the end of which all its months would return to the same state of relation to any thing else, which served as a standard of reference for them, as at first.

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[p] Introduction to the Tables of the Fasti Catholici, App. Page vi. Table ii.

The true reasons and force of the name, as applicable to one month of the calendar only, could never fully appear until the calendar itself was fixed by a correction like that of Numa; and each month was ever after restricted to its own place in the natural year, within certain limits at least. Numa might seem to have borrowed his Aprilis from the calendar of Romulus: but it should be remembered that, at the time of his correction, it was falling in the calendar of Romulus *de facto* on August 20[q]; and that he himself must have transferred it from that quarter of the natural year to the spring: which was almost the same thing as giving it a place in the spring, and under its proper name as a month of the spring, for the first time.

Now the earliest date of Aprilis in his calendar was April 6; seven days after the mean vernal equinox in his time; the latest was May 6, 37 days later: the proper or normal date was April 18, 19 days later. Its seat then in his calendar must have been the spring; but the spring advanced, and approaching to its termination: the *ver adultum,* now ready to pass into the *ver præceps,* the third of the spring months themselves. Nor is there any reason why that should not have been considered compatible with the name itself; or that, as Januarius in the calendar of Numa was the first of the spring months, Aprilis might not have been the last, retaining its name notwithstanding. We find Ovid applying the etymon of Aprilis, as the opening month, even to the Aprilis of his own time[r]; and contending on that very account more than on any other that no month in the calendar could be fitter to be dedicated to Venus[s].

> Nec Veneri tempus quam ver erat aptius ullum:
>   Vere nitent terræ: vere remissus ager.
> Nunc herbæ rupta tellure cacumina tollunt:
>   Nunc tumido gemmas cortice palmes agit.
> Et formosa Venus formoso tempore digna est:
>   Utque solet Marti continuata suo.
> Vere monet curvas materna per æquora puppes
>   Ire, nec hibernas jam metuisse minas.

The name of Aperilis after all, consistently with its etymon, might denote not the month in which the spring began to open, but that in which it was already opened; the *ver formatum* or *adultum,* not the *ver novum* or *adolescens.* And in that sense it would be strictly applicable to the Aprilis of Numa.

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[q] P. 280.

[r] Fasti, iv. 85. See supra, page 83.

[s] Ibid. 125.

iii. *From the dates of feasts, instituted by Numa.*

i. *The Fordicidia.*

A general review of the ritual, liturgic, or sacred calendar of Numa would lead us into too many details; and would take up too much time. It will suffice for our present purpose if we illustrate the times and occasions of the feriæ in his calendar, relatively to their place in the natural year, in some of the more obvious and striking instances; of which we propose to notice *five:* the Fordicidia; the Palilia; the Vinalia; the Robigalia; and the Sacrum Deæ Carnæ, or ceremony of the Kalendæ Fabariæ.

i. The Fordicidia. That the Fordicidia were instituted by Numa appears from Ovid[t]. We may take it for granted that this ceremony in the Roman calendar was as old as the calendar itself. As to the meaning of the name, and the final end of the ceremony so called: Fordicidiis boves fordæ id est gravidæ immolabantur, dictæ a fœtu[u]—Fordicidia a fordeis bubus. bos forda quæ fert in ventre[w]. quod ea die publice immolantur boves prægnantes in curieis complureis; a fordeis cædendis Fordicidia dicta[x]. This word *fordus* occurs also in the form of *hordus;* and *Fordicidia* in that of *Hordicidia*[y]—Quæ sterilis est vacca taura appellata, quæ prægnans horda. ab eo in fastis dies hordicalia nominantur, quod tunc hordæ boves immolantur[z].

The date of the ceremony was xvii Kal. Maias[a], April 15 Roman of Cæsar's time, April 14 of Numa's: and both the reasons and the nature and the final end of the institution are explained by Ovid as follows:

> Tertia post Veneris cum lux surrexerit Idus
> Pontifices! forda sacra litate bove.

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[t] Fasti, iv. 629 sqq.

[u] Festus, vi. 152. 1. Fordicidiis.

[w] Cf. Columella, vi. 24. §. 3. Servius, ad Æn. ii. 140.

[x] Varro, De Lingua Lat. v. 55.

[y] Festus, viii. 174. 8: Horda. Cf. Servius, ad Æn. vii. 695. for the interchange of H and F.

[z] Varro, De Re Rustica, ii. v. §. 6.

[a] Ovid, Fasti, iv. 629 sqq. Cf. the Maffæan, Prænestine, and Vatican calendars apud Foggini. Cf. also Lydus, De Mensibus, iv. 49. 84. l. 12.

Forda ferens bos est, fecundaque; dicta ferendo:
  Hinc etiam fetus nomen habere putant.
Nunc gravidum pecus est: gravidæ nunc semine terræ:
  Telluri plenæ victima plena datur.
Pars cadit arce Jovis, ter denas Curia vaccas
  Accipit, et larga sparsa cruore madet.

Rege Numa fructu non respondente labori
  Irrita decepti vota colentis erant.
Nam modo siccus erat gelidis aquilonibus annus,
  Nunc ager adsidua luxuriabat aqua.
Sæpe Ceres primis dominum fallebat in herbis,
  Et levis obsesso stabat avena solo:
Et pecus ante diem partus edebat acerbos,
  Agnaque nascendo sæpe necabat ovem[a].

Exta bovis dantur gravidæ: felicior annus
  Provenit, et fructum terra pecusque ferunt[b].

It thus appears that the Fordicidia were Sacra Telluri, in which the victims were a certain number of *fordæ boves*, i. e. cows in calf; and that they were celebrated on April 14 Roman by the old calendar: the final end of the ceremony being to facilitate the *proventus pecudum* generally, yet at that season of the year in particular. The ceremony therefore, as then performed, recognized the middle of April in the calendar of Numa as the natural season for the calving of cows.

It may be objected indeed that there is no season in the natural year which could be considered more appropriated to that purpose than another; and it must be admitted that such an objection would apply to a certain extent at present. But among the Greeks and Romans the state of the case was different. The general rule among them was so to order the time of the admission of the cow to the bull that the calving season should fall out in the spring; and as the interval of gestation in the cow was nine or ten months, if the ordinary time of bringing forth was the spring that of conception must have been the summer. Κύει δ' ἐννέα μῆνας (ἡ βοῦς) δεκάτῳ δὲ τίκτει· ἔνιοι δὲ διϊσχυρίζονται δέκα μῆνας κύειν ἡμερολεγδόν[c] —Ἄρχονται δὲ τῆς ὀχείας περὶ τὸν Θαργηλιῶνα μῆνα καὶ τὸν Σκιρροφοριῶνα αἱ πλεῖσται· οὐ μὴν ἀλλ᾽ ἔνιαι καὶ μέχρι τοῦ μετοπώρου κυίσκονται[d]. The first period here alluded to in the rectified Attic calendar might be generally assumed from May 17 to July 16: and the calving season on the same principle, (ten months later,) from March 10 to May 8.

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[a] Fasti, iv. 641.
[b] Ibid. 671.
[c] Aristotle, De Animalibus, vi. 21. Cf. Pliny, H. N. viii. 70. 527.

Mense Julio feminæ (boves) maribus plerumque permittendæ, ut eo tempore conceptos proximo vere adultis jam pabulis edant. nam decem mensibus ventrem perferunt[e]—Hoc tempore (mense sc. Julio) maxime tauris submittendæ sunt vaccæ, quia decem mensium partus sic poterit maturo vere concludi[f]. On this principle the calving season would be April or May. De *Aprili*[g]: Hoc mense vituli nasci solent; quorum matres abundantia pabuli juventur. Maxime idoneum tempus ad concipiendum, observes Varro[h], a Delphini exortu usque ad dies xl aut paullo plus; quæ enim ita conceperunt temperatissimo anni tempore pariunt. vaccæ enim mensibus decem sunt prægnantes[i]. The rising of the Dolphin here alluded to is the vespertine or acronychal; which Ovid[k], Columella[l], and Pliny[m] all date on the iv Idus of June, June 10 *.

Now if we may suppose such a rule as this to have existed in Numa's time, viz. that the stated season of the coitus boum was about the acronychal rising of this constellation, and for a certain number of days afterwards; then the date of this phenomenon for the latitude of Rome in Cæsar's time being about June 10, in Numa's time it must have been three or four days earlier, about June 7. Consequently

* Pliny in another instance (H. N. viii. 70. p. 527) has Coitus (boum) a Delphini exortu a. d. pridie Nonas Januarias: which the necessity of the case requires to be corrected by Pridie Nonas Junias, June 4 Roman: though Pliny himself dates the Heliacal rising of the Dolphin, (according to Cæsar too,) Prid. Non. Januarias: H. N. xviii. 64. Cf. Ovid, F. i. 315. 457. ad v Id. Jan. Columella, xi. ii. § 94. ad vi Kal. Januarias. Geoponica, i. 9, the Quintilii, Jan. 1.

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[d] Ibid. cf. Gaza, De Mensibus, iv. 283. A: v. 286. D.

[e] Columella, vi. xxxiv. 1.

[f] Palladius, viii. Tit. iv.

[g] Ibid. v. Tit. vii.

[h] De Re Rustica, ii. v. § 13. p. 279.

[i] Cf. Ibid. i. § 19: Geoponica, xvii. 3. Didymi: xvii. 5. Quintiliorum.

[k] Fasti, vi. 469.

[l] xi. ii. § 45.

[m] H. N. xviii. 67. 3. p. 220. cf. Varro, apud Geoponica, xvii. 10. Just before, ii. v. §. 12. Varro observes that he kept his bulls previously two months by themselves, feeding them on purpose. Hoc secundum astri exortum facio quod Græci vocant λύραν, fidem nostri. Lyra rises (vesperi) in Ovid (Fasti v. 415) iii. Nonas Maias, May 5 Roman.

the beginning of the calving season, about ten months afterwards, would be about April 3 or 4; and its duration (according to Varro's rule at least) would be about forty days: so as to last to May 13 or 14. In the rectified years of Numa's cycle April 14 fell on May 1. Consequently the Fordicidia, attached to this day, and purposely intended to facilitate the calving of cows, must have come critically within this period, and almost at the very middle of it.

ii. The Palilia. That this festival was attached to its recognized date in the calendar, xi Kal. Maias, along with the Natalis Urbis also, by Numa himself has been probably made to appear elsewhere[n]. The name of this feast in Latin is sometimes Palilia, sometimes Parilia; and there is as good (or even better) authority for the latter as for the former: and yet, if the festival was really intended in honour of Pales, the original form of the name must have been Palilia[*]. Palilia dicta a Pale, quod et feriæ ei deæ fiunt; ut

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[*] Varro has Parilia[1], and Palilia[2]. Cicero has Parilia[3]. Livy has Parilia[4]. The Maffæan calendar has Par. (Parilia) opposite to xi Kal. Maias: the Prænestine has Pal. (Palilia[5]). Festus admits Parilia only in the regular order, though he recognises the form of Palilia also[6]. Ovid, as we have seen, has uniformly Palilia[7]. Columella has Parilia[8]. Velleius Paterculus has Parilia[9]. Pliny has Parilia[10], and Sidus Parilicium, ad xi Kal. Maias, with a *varia lectio* of Palilicium[11]. Suetonius has Palilia[12]. Solinus has Parilia[13]. Censorinus has Parilia[14]. Vopiscus in his life of the emperor Tacitus has Parilia[15]. Servius has Palilia[16]. Dionysius has Parilia: Plutarch, Palilia[17]. Dio Cassius has Parilia[18]. Athenæus has Parilia[19]. Suidas has Παρίλια[20]. Hesychius has Παλίλια[21].

It would be no objection perhaps to this form of the name, that the se-

[n] Diss. ii. ch. ii. sect. i. p. 102.

[1] De Re Rustica, ii. 1. § 9.

[2] Ibid. v. 2. p. 273.

[3] Ad Atticum, ii. 8: iv. 10: xiv. 14: De Divinatione, ii. 47.

[4] xl. 2.

[5] Apud Foggini.

[6] xiv. 325. 1: 359. 15. Popularia sacra: 400. 11. Parilia Festa: xvi. 457. 21. Romani: Festis Parilibus. Cf. Fragmenta, p. 36.

[7] Cf. Metam. xiv. 774. Fasti, vi. 257: iv. 819, 820.

[8] De Re Rustica, vii. 3, 11.

[9] i. 7.

[10] H. N. xix. 24. 362: 44. 433.

[11] H. N. xviii. 66. 214.

[12] Caius, xvi. 13. Cf. Tiberius, lxxiii.

[13] i. 19.

[14] De Die Natali, xxi.

[15] Historiæ Aug. SS. cap. 9.

[16] Ad Georg. iii. 1.

[17] Dionys. Ant. Rom. i. 88. Plutarch, Romulus, xii. xxi.

[18] xliii. 42: xlv. 6.

[19] viii. 63.

[20] In voce.

[21] ii. 836. Cf. 847.

Cerealia a Cerere, Vinalia a vino [g]—Pales dicebatur dea pastorum, cujus festa Palilia dicebantur; vel ut alii volunt dicta Parilia, quoniam pro partu pecoris eidem sacra fiebant [h]—Parilia dicuntur non Palilia; non a Pale dea, sed quod eo tempore omnia sata arboresque et herbæ parturiunt pariuntque [i]. There can be no doubt in our opinion that the true etymon of the word is Pales. But whether from Pales or from Pario, and whether to be written Palilia or Parilia, it was a festival of the spring; and of that period in the spring when all nature both animal and vegetable was most lively and most productive. Its seat in the calendar therefore could be no time of the year but the spring.

The ceremonies of this day in the calendar, (April 21 in his time, April 20 in that of Numa,) are described at great length by Ovid.

> Nox abiit oriturque aurora. Palilia poscor.
> Non poscor frustra si favet alma Pales.
> Alma Pales! faveas pastoria sacra canenti,
> Prosequor officio si tua festa pio.
> Certe ego de vitulo cinerem [k] stipulasque fabales
> Sæpe tuli plena februa casta manu.
> Certe ego transilui positas ter in ordine flammas;
> Virgaque roratas laurea misit aquas.
> Mota Dea est, operique favet—navalibus exi
> Puppis! habent ventos jam tua vela suos.
> I pete virginea populus! suffimen ab ara:
> Vesta dabit: Vestæ munere purus eris.
> Sanguis equi suffimen erit vitulique favilla:
> Tertia res duræ culmen inane fabæ.

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cond syllable even in Parilia must be long, as it is in Palilia; yet if derived from *pario* it ought to be short. *Pario* makes *parere* at present; but *parire* occurred in Ennius.

Ova parire solet genu' penneis condecoratum [22].

Also in a fragment of Plautus [23]. Parilia occurs also in Varro, De L. Lat. [24] as a kind of garment; a species of *ricinium*.

[22] Varro, De Lingua Lat. iv. 18.

[23] Cf. Philargyrius, ad Virg. Eclog. ii. 63.

[24] iv. 37.

[g] Varro, De Lingua Lat. v. 55.

[h] Festus, xiv. 322. 4. Pales.

[i] Marianus Victorinus, lib. i. Artis Grammaticæ, p. 2470. Charisius, Institutiones Grammaticæ, i. p. 43. Palilia dicuntur. Pales enim dea pastoralis est, cujus dies festus. nisi quod quidam a partu Iliæ Parilia dicere maluerunt.

[k] Cf. ad Fast. iv. 639.

Pastor! oves saturas ad prima crepuscula lustra,
  Uda prius spargat virgaque verrat humum.
Frondibus et fixis decorentur ovilia ramis,
  Et tegat ornatas longa corona fores.
Cærulei fiant vivo de sulphure fumi,
  Tactaque fumanti sulphure balet ovis.
Ure mares oleas tædamque herbasque Sabinas *,
  Et crepet in mediis laurus adusta focis.
Libaque de milio milii fiscella sequatur,
  Rustica præcipue quo Dea læta cibo est.
Adde dapes mulctramque suis: dapibusque resectis
  Silvicolam tepido lacte precare Palem[l].

The most characteristic of these ceremonies, (that at least which is most frequently insisted on in these descriptions of the Palilia,) was the leaping over lighted heaps of hay and straw or stubble.

Nec rus saturum laudare ubi corbes
Et focus et porci et fumosa Palilia fœno[m].

On which the scholiast quotes from Varro: Palilia tam privata quam publica sunt apud rusticos; ut congestis cum fœno stipulis ignem magnum transiliant, his Palilibus se expiari credentes.

His Dea placanda est: hæc tu conversus ad ortus
  Dic ter, et in vivo perlue rore manus.
Tum licet adposita veluti cratere camella
  Lac niveum potes purpureamque sabam.
Moxque per ardentes stipulæ crepitantis acervos
  Trajicias celeri strenua membra pede[n].

At madidus Baccho sua festa Palilia pastor
  Concinet. a stabulis tunc procul este lupi.
Ille levis stipulæ sollemnes potus acervos
  Accendet, flammas transilietque sacras[o].

Annuaque accenso celebrare Palilia fœno,
  Qualia nunc curto lustra novantur equo[p].

Urbi festus erat, dixere Palilia † patres:
  Hic primus cœpit mœnibus esse dies.

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* The herb called sabina, or savine: cf. Pliny, H. N. xvi. 33: xxiv. 61.

[l] Fasti, iv. 721: cf. 777–862.

[m] Persius, i. 71.

[n] Fasti, iv. 777.

[o] Tibullus, ii. v. 87.

[p] Propertius, iv. i. 19. Cf. Ovid, Fasti, iv. 389–679, the Equestria certamina at the Cerealia, April 10–19.

† There is a various reading here of Parilia.

> Annua pastorum convivia, lusus in urbe,
> Cum pagana madent fercula deliciis.
> Cumque super raros fœni flammantis acervos
> Trajicit immundas ebria turba dapes [q].

The construction which Ovid puts on this part of the ceremonies of the day is that it was intended to commemorate the discovery of fire from stone, by means of the flint.

> Pars quoque cum saxis pastores saxa terebant
> Scintillam subito prosiluisse ferunt.
> Prima quidem periit: stipulis excepta secunda est.
> Hoc argumenti flamma Palilis habet [r].

But in our opinion it had no object in view except to declare that, with the arrival of the Palilia, the time was over for which the cattle were obliged to subsist on dry fodder merely; such as hay or straw or branches of trees, their winter fare properly so called: and therefore that the fields were now covered again with grass, and that green fodder of every kind was to be had in abundance. All this serves to illustrate the relation of this feast to the spring, and to some one day in the spring more particularly. In Numa's calendar its earliest date was April 25, its latest May 25. Its mean or proper date was May 7.

iii. The Vinalia. There were two ceremonies in the Roman calendar called by this name; one April 23 in the Julian calendar [s], April 22 in that of Numa, the other, xii or xiii or xiv Kal. Septembres [t], August 19, 20, or 21 in the Julian calendar, August 17, 18, or 19 in that of Numa. The former of these had also the name of Veneralia [u]; the latter were properly called Vinalia Rustica. Pliny terms the Vinalia of April the Vinalia priora [w]. Vinalia priora quæ ante hos dies sunt ix Kalendas Maii degustandis vinis instituta nihil ad fructus attinent. Those of August the Vinalia altera: Extra has caussas sunt Vinalia altera quæ aguntur a. d. decimumtertium Kalendas Septembres [x].

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[q] Propertius, iv. iv. 73.

[r] Fasti, iv. 795.

[s] Ibid. 863: cf. the Maffæan and Prænestine Calendar, apud Foggini, ad ix Kal. Maias.

[t] All these dates are assigned it. The date in the Julian calendar seems to have been the xiv Kal. Sept$^{\text{res}}$. Cf. the Maffæan, Capranican, Amiternine, and Antiatine calendars, apud Foggini, ad xiv Kal. Sept$^{\text{res}}$.

[u] Cf. Plutarch, Quæstiones Romanæ, xlv.

[w] H. N. xviii. 69 § 3. 240. Cf. Scholia ad Germanici Cæs. Aratea Phænomena, vol. ii. (Buhle) p. 117.

[x] Ibid. § 4. p. 242.

Festus observes of the former[y], Vinalia diem festum habebant quo die vinum novum Jovi libabant. Of the latter[z], Rustica Vinalia quarto decimo Kalendas Septembres celebrabantur, quo die primum vinum in urbem deferebant. And again[a]: Rustica Vinalia appellantur mense Augusto quarto decimo Kalendas Septembres Jovis dies festus, quia Latini bellum gerentes adversus Mezentium omnis vini libationem ei deo dedicaverunt. eodem autem die Veneri templa sunt consecrata; alterum ad Circum Maximum, alterum in luco Libitinensi: quia in ipsius Deæ tutela sunt horti—Rustica Vinalia mense Augusto, ut est in Fastis, Veneri fiebant, quod eodem illo die ædis ei deæ consecrata est, jumentaque et olitores ab opere cessent, quia omnes horti in tutela Veneris esse dicuntur[b]. Varro also observes of these latter[c], Vinalia Rustica dicuntur ante diem duodecimum Kalendas Septembris, quod tum Veneri dedicata ædis: et orti ejus tutelæ adsignantur, ac tum sunt feriati olitores—Item adveneror Minervam et Venerem, quarum unius procuratio oliveti alterius hortorum, quo nomine Rustica Vinalia instituta[d]. That the gardens were in *tutela Veneris* appears from Pliny also[e]; Quamquam hortos tutelæ Veneris adsignatos.

On this principle the Vinalia of August would have been more properly Veneralia than those of April. On the other hand the Vinalia of April were more properly sacred to Jupiter than to Venus. Et Masurius Fastorum secundo Vinaliorum dies inquit Jovi sacer est, non ut quidam putant Veneri[f]—Vinalia a vino. hic dies Jovis non Veneris. hujus rei cura non levis in Latio. nam aliquot loceis vindemiæ primum a sacerdotibus publice fiebant ut Romæ etiam nunc. nam Flamen Dialis auspicatur vindemiam: et ut jussit vinum legere agna Jovi facit, inter cujus exta cæsa et porrecta flamen prorsus vinum legit. in Tusculaneis sacreis est Vinum novum ne vehatur in urbem ante quam Vinalia kalentur[g]. Ovid observes of this day,

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[y] xix. xx. 593. 9. Vinalia.

[z] xvi. 464. 2. Rustica Vinalia.

[a] Ibid. 4. Rustica Vinalia.

[b] xvi. 459. 11. Rustica Vinalia.

[c] De Lingua Lat. v. 57.

[d] De Re Rustica, i. i. § 6.

[e] H. N. xix. 19. § 1. 342.

[f] Macrobius, Saturnalia, i. 4. 211.

[g] Varro, De Lingua Lat. v. 55.

Dicta Pales nobis, idem Vinalia dicam.
Una tamen media est inter utramque dies[h].

Cur igitur Veneris festum Vinalia dicant
Quæritis? et quare sit Jovis ista dies?
Turnus an Æneas Latiæ gener esset Amatæ
Bellum erat. Hetruscas Turnus adoptat opes.
Clarus erat sumtisque ferox Mezentius armis,
Et vel equo magnus vel pede major erat.
Quem Rutuli Turnusque suis adsciscere tentant
Partibus: hæc contra dux ita Tuscus ait:
Stat mihi non parvo virtus mea. vulnera testes;
Armaque quæ sparsi sanguine sæpe meo.
Qui petis auxilium non grandia divide mecum
Præmia, de lacubus proxima musta tuis.
Nulla mora est operæ: vestrum dare vincere nostrum est:
Quam velit Æneas ista negata mihi.
Adnuerant Rutuli. Mezentius induit arma.
Induit Æneas, adloquiturque Jovem.
Hostica Tyrrheno vota est vindemia regi—
Juppiter! e Latio palmite musta feras.
Vota valent meliora: cadit Mezentius ingens,
Atque indignanti pectore plangit humum.
Venerat auctumnus calcatis sordidus uvis:
Redduntur merito debita vina Jovi.
Dicta dies hinc est Vinalia. Juppiter illam
Vindicat, et festis gaudet inesse suis[i].

The tradition related by Ovid in these lines was recognized by Cato in his Origines[k], and by the rest of the ancients[l]. They differed only in dating the fact itself some of them in the time of Æneas, and some in the time of Ascanius—among whom was Dionysius of Halicarnassus. It is difficult to suppose, in direct opposition to this unanimous belief of our Roman authorities in the truth of this fact, that there was not some foundation for it. Now this tradition explains the connection of the Vinalia with Jupiter, still existing *de facto* when the Vinalia were attached to a certain day in Aprilis in the natural year, and long had been so; but it does not explain the origin of the connection, except on one supposition; viz. that these Vinalia were consecrated to Jupiter when they were falling in a different month, and in one much nearer to the natural season of vintage than the month of April.

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[h] Fasti, iv. 863.

[i] Ibid. iv. 877.

[k] Apud Macrobium, Saturn. iii. 5. 16.

[l] Varro, apud Plinium, H. N. xiv. 14. 81. Festus, xvi. 464. 11. Rustica Vinalia. Fasti Verrii Flacci, apud Foggini, ad ix Kal. Maii. Dionys. Hal. i. 65: ii. 5. Plutarch, Quæstiones Romanæ, xlv. lxxvii. Dio, Fragmenta, iii. 3. Auctor, De Origine Urbis Romæ, p. 18. l. 4–11. Servius, ad Æn. ix. 745.

The date of these Vinalia in Numa's calendar B. C. 712, April 22, corresponded at that time to the 22nd of the primitive Athyr: and, if there was any foundation for the tradition above alluded to, it is manifestly possible that Athyr 22 might be the date of the event commemorated by the institution; handed down to the time of Numa in the primitive calendar. And as to the time of the event, whether it happened in the reign of Æneas after his arrival in Italy, or in that of Ascanius, all that we shall say is that it must have happened in either case some time between B. C. 1177 and B. C. 1143. Now there was no year between those extremes in which the 22nd of the primitive Athyr was falling later than August 29 or than August 21: neither of them much before the usual time when the vintage would begin to be ripe for the climate of Italy, even at that early period itself. This coincidence gives a colour of probability to the fact attested by the tradition; and to the institution of the Vinalia as a memorial of it, yet as attached originally to the 22nd of Athyr, the same day which B. C. 712 in the first year of the cycle of Numa was coinciding with the 22nd of his April. It explains too how the Vinalia in his calendar came to be attached to Aprilis 22, as the representative of this ancient and original date.

We may infer then on the strength of this tradition and of this coincidence that the Vinalia Priora, attached to Aprilis 22 in the calendar of Numa, were much older than his calendar; and that the proper use which is to be made of this most ancient institution, and of its proper date, is to connect Numa's calendar with the Primitive equable one. But besides this, the institution of this ceremony served another purpose; which also appears from the testimonies quoted above, and especially from those of Varro and Pliny: viz. that of defining and making known the time before which the new wine, made from the vintage of the preceding year, was not to be broached, or exposed to sale, or applied to common use. It was first to be consecrated by this ceremony; whereby it was also acknowledged to be in the first place and in some sense or other the right and property of Jupiter*.

The thing to be observed is that the Vinalia as destined to answer this purpose in the calendar of Numa were attached to the 22nd of his Aprilis; that is, as we have seen, to the last of his spring months as such. The Bœotians and the Athenians had an annual ceremony in their calendars respectively which they called the Πιθοίγια; the date of which was the sixth of Prostaterius in the Bœotian calendar, and the eleventh of Anthesterion in the Attic: both of them spring months too, though earlier in the spring than the Aprilis of Numa. The Roman Vinalia and the Greek Πιθοίγια, whether in a religious or in an œconomical point of view, were analogous institutions; and the object of both in the latter respect being merely to discover how the new wine had stood the winter and the early spring, it did not signify to what particular period of the spring the trial was fixed: provided it was only late enough to put the soundness of the wine to the test. The 22nd of Numa's April was not too late to answer that purpose; or rather, as coming so near to the end of the spring quarter in his calendar, it was perhaps the most appropriate time which could have been fixed on for such a trial. And if, besides this, it was the traditionary date of the Vinalia as sacred to Jupiter, handed down to his time from that of the event itself; we need no other reason why he should have fixed upon this day for the Vinalia of his own calendar too.

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* The wine taken out of the jars or casks, on these occasions, for the purpose of a libation, before any use was to be made of the rest, was called Calpar: Festus, iii. 63: Calpar vinum novum, quod ex dolio demitur sacrificii caussa antequam gustetur. Jovi enim prius sua vina libabant. quæ appellabant festa Vinalia. He adds, Calpar genus vasis fictilis; and Calpar, according to Varro, was the name given to the jars in which the wine itself was kept, before the introduction of the word dolium: Fragmenta, 240: Quod antequam nomen dolii prolatum esset, cum id genus vasis Calpar diceretur, id vinum Calpar appellatum.

There was a day in the calendar also called Meditrinalia, of which Varro gives the following account, De Lingua Lat. v. 57: Meditrinalia dies dictus a medendo: quod ut Flaccus flamen Martialis dicebat hoc die solitum vinum novum et vetus libari et degustari medicamenti caussa: quod facere solent etiam nunc multi cum dicunt; Novum vetus vinum bibo. Novo veteri musto medeor. Cf. Festus, xi. 234. 9. Meditrinalia. The Maff. and Amiternine calendars, apud Foggini, have MED. which probably means this day, opposite to v Idus Octobres: so that this mixture of the old wine and the new took place as soon as the new wine had been made; and was not for the purpose of tasting the new, but of *remedying* or *curing* the old. For another ceremony connected with the vintage, see Festus, xvii. 470. 13. Sacrima.

With regard to the Vinalia altera, called the Vinalia Rustica, and attached to one of these days, the xii, xiii, or xiv Kalendas Septembres; it does not appear that they were as old as Numa: and yet they might be so, and might have been purposely attached by him to the same season of the year in which the Vinalia priora had fallen at the time of their institution; that is not long before the natural season of the vintage. The date of these Vinalia is doubtful; though in the Julian calendar it seems to have been xiv Kal. Septembres, August 19 Roman. It is clear that there was little difference between the nominal date of the Vinalia in April and that of these in August: and very possibly they were fixed by Numa nearly to the same day in his Sextilis, as those had been in his Aprilis*. That these Vinalia were supposed to be sacred to Venus as the patroness of gardens, and were kept as an holiday by the gardeners, and by the dealers in the productions of gardens, at Rome, appears to have been due to an accidental coincidence; viz. that two temples happened to be dedicated to her some time or other on this day. The name of Veneralia however having thus come to be considered common to the Vinalia posteriora, it might be afterwards transferred to the Vinalia priora; though testimony seems to be agreed that those in particular were sacred to Jupiter, not to Venus.

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* The proportion of the Cyclical year to the Nabonassarian, all through the period to which the tradition relating to the origin of the Vinalia priora, if true, must have belonged, was such that the 22d of a given Cyclical month corresponded to the 18th of the Nabonassarian. See our General Tables, Julian Type, or Period, xxiii. Numa was probably aware of that; and therefore, assuming the traditionary equable date of these Vinalia in his time to be Athyr 22, he might assume the 18th of Phamenoth, four equable months later, as the date of origination: and assuming the 18th of his own Sextilis as the same with that of the equable Phamenoth of his own time, (which was strictly the case,) he might attach the Vinalia posteriora to Sextilis 18. This date in the style of his own calendar was xiii Kal. Septembres; and that does appear to have been the date of these second Vinalia, though in the fragments of the Julian calendar it is marked for xiv Kal. Septembres, and that date is assigned it by Festus also. Varro dated it supra even xii Kal. Septembres. But Pliny observes of it, H. N. xviii. 69. § 4. p. 242: Vinalia altera ... xiii Kal. Septembres ... Varro a Fidicula incipiente occidere mane determinat; quod vult initium auctumni esse: et hunc diem festum tempestatibus leniendis institutum: which seems to fix Varro's date for it to the xiii Kal. Septembres August 20 in the Julian calendar, August = Sextilis 18, in that of Numa.

In the first year of Numa's cycle the kalends of Sextilis fell on Aug. 16:

iv. The Robigalia.—Robigalia dicta ab Robigo: secundum segetes huic Deo sacrificatur ne rubigo occupet segetes[m]—Robigalia dies festus septimo Kalendas Maias, quo Robigo deo suo quem putabant rubiginem avertere sacrificabant[n]—Inde et Robigus deus, et sacra ejus septimo Kalendas Maias Robigalia appellantur[o].

> Sex ubi quæ restant luces Aprilis habebit
>   In medio cursu tempora veris erunt.
> Et frustra pecudem quæres Athamantidos Helles,
>   Signaque dant imbres: exoriturque Canis.
> Hac mihi Nomento Romam cum luce redirem
>   Obstitit in media candida pompa via.
> Flamen in antiquæ lucum Robiginis ibat
>   Exta canis flammis exta daturus ovis.
> Protinus accessi ritûs ne nescius essem:
>   Edidit hæc flamen verba Quirine! tuus.
> Aspera Robigo parcas Cerealibus herbis,
>   Et tremat in summa leve cacumen humo.
> Tu sata sideribus cœli nutrita secundis
>   Crescere dum fiant falcibus apta sinas.
> Vis tua non levis est: quæ tu frumenta notâsti
>   Mœstus in amissis illa colonus habet.
> Nec venti tantum Cereri nocuere nec imbres
>   Nec sic marmoreo pallet adusta gelu;
> Quantum si culmos Titan incalfacit udos—
>   Tum locus est iræ Diva tremenda tuæ.

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and therefore the 18th on September 2: a very probable date for the Vinalia posteriora in his calendar, as commemorative of an event which must have been prior, when it actually happened, to the season of vintage; yet could not long have preceded it.

[m] Varro, De Lingua Lat. v. 56.

[n] Festus, xvi. 451. 16. Robigalia.

[o] Servius, ad Georgica, i. 151. Cf. Fasti Verrii Flacci, or Prænestine Calendar, apud Foggini, ad vii Kal. Maias: and the Maffæan Cal.

Parce precor scabrasque manus a messibus aufer!
Neve noce cultis: posse nocere sat est[p].

Tum mihi, (Cur detur sacris nova victima quæris?)
(Quæsieram), Caussam percipe flamen ait.
Est Canis; Icarium dicunt: quo sidere moto
Tosta sitit tellus præcipiturque seges.
Pro cane sidereo canis hic imponitur aræ;
Et quare pereat nil nisi nomen habet[q].

Hinc mala Rubigo virideis ne torreat herbas
Sanguine lactentis catuli placatur et extis[r].

Catularia porta Romæ dicta est, quia non longe ab ea ad placandum Caniculæ sidus frugibus inimicum rufæ canes immolabantur, ut fruges flavescentes ad maturitatem perducerentur[s]—Rutilæ canes, id est non procul a rubro colore, immolabantur, ut ait Atejus Capito, Canario sacrificio pro frugibus, deprecandæ sævitiæ caussa sideris Caniculæ[t]—Equidem ipsa etiam verba priscæ significationis admiror. ita enim est in commentariis Pontificum: Augurio Canario agendo dies constituantur priusquam frumenta vaginis exeant et antequam in vaginas perveniant[u]—Quarto Robigum ac Floram, quibus propitiis neque rubigo frumenta atque arbores conrumpit neque non tempestive florent. itaque publicæ Robigo feriæ Robigalia Floræ ludi Floralia instituti[w]—Tria namque tempora fructibus metuebant (prisci Romani), propter quod instituerunt ferias diesque festos, Rubigalia Floralia Vinalia[x]. Rubigalia Numa[y] constituit anno regni sui xi°, quæ nunc aguntur a. d. septimum Kalendas Maii, quoniam tunc fere segetes rubigo occupat[z].

The institution of the Robigalia is thus traced up to Numa, and to the eleventh year of his reign, B. C. 703. The vii Kal. Maias of that time, April 25 Roman of the Julian calendar, would answer to April 24 Roman: and B. C. 703, in the xth year of the first cycle of Numa, April 24 Roman fell on May 9.

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[p] Ovid, Fasti, iv. 901–922–936.

[q] Ibid. 937–942.

[r] Columella, x. De Hortorum Cultu, 342.

[s] Festus, iii. 71. 2. Catularia.

[t] Ibid. xvi. 465. 5. Rutilæ: cf. Philargyrius, ad Georg. iv. 425.

[u] Pliny, H. N. xviii. 3. p. 18.

[w] Varro, De Re Rustica, i. i. § 6.

[x] Cf. Scholia ad Germanici Cæs. Aratea Phænomena, p. 116, 117.

[y] Cf. Tertullian, iv. 114. De Spectaculis, 5.

[z] Pliny, H. N. xviii. 69. § 3. p. 237.

Now Varro informs us[a] that the grain of the wheat was 15 days in the sheath, or *in vaginis;* 15 in the ear and flowering; and 15 in the ear and ripening: 45 days in all. And since for the climate of Italy, in the parts about Rome, the corn was commonly ripe about midsummer, which for Numa's time was about June 30; the ear would begin to swell in the sheath about May 16: only seven days later than Numa's date of the Robigalia May 9. Consequently this ceremony would thus have been fixed by him, in the first instance, to a very probable date in the process of fructification; only seven days before the actual developement of the ear in the sheath: the very time which would seem to have been meant by the old form of words quoted by Pliny, Antequam frumenta in vaginas perveniant, priusquam vaginis exeant.

v. Sacrum Carnæ Deæ. That the sacrum Carnæ Deæ was in all probability as old as the calendar may be inferred from what Macrobius assigns as one of the reasons of the name given to the month of Junius[b]: Nonnulli putaverunt Junium mensem a Junio Bruto qui primus Romæ consul factus est nominatum: quod hoc mense, id est Kalendis Juniis, pulso Tarquinio sacrum Carnæ Deæ in Cœlio monte voti reus fecerit. hanc deam vitalibus humanis præesse credunt. ab ea denique petitur ut jecinora et corda quæque sunt intrinsecus viscera salva conservet. et quia cordis beneficio, cujus dissimulatione Brutus habebatur, idoneus emendationi publici status exstitit, hanc deam quæ vitalibus præest templo sacravit. cui pulte fabaria et larido sacrificatur, quod his maxime rebus vires corporis corroborentur. nam et Kalendæ Juniæ fabariæ vulgo vocantur, quia hoc mense adultæ fabæ divinis rebus adhibentur—Quod Kalendis Juniis et publice et privatim fabatam pultem diis mactant[c].

> Prima dies tibi Carna! datur. dea cardinis hæc est.
>   Numine clausa aperit claudit aperta suo[d].
>
> Pinguia cur illis gustentur larda Kalendis,
>   Mixtaque cur calido sit faba farre, rogas?

[a] De Re Rustica, i. xxxii. 6. Cf. our Fasti Catholici, vol. ii. 222–226 note. Diss. x. ch. vii. sect. 2.

[b] Saturnalia, i. 12. 260.

[c] Varro, apud Nonium, in *Mactare.* Fragmenta, 241.

[d] Ovid, Fasti, vi. 101–182.

> Prisca dea est, aliturque cibis quibus ante solebat,
> Nec petit adscitas luxuriosa dapes[e].

The coincidence to be remarked in this instance is that ripe beans were used in this sacrum Carnæ on the Kalends of June; and gave name to the day of the ceremony itself as the Kalendæ Fabariæ. Virgil dates the sowing of the bean in the spring:

> Vere fabis satio[f].

Columella[g] speaks of a sort of bean, called *trimestris*, sown in February and ripe three months afterwards: consequently in May at the latest. And prescribing the work to be done from the Ides of June to the solstice he observes[h]; Sed et viciam in pabulum secare oportet priusquam siliquæ ejus durentur: ordeum metere: *fabam serotinam* ducere: *fabam maturam* conterere, et paleam ejus diligenter recondere. Palladius too shews that the bean was fit to be gathered in June[i]; Nunc et faba luna minuente velletur: and that, before the solstice; as appears from the next title. The same thing is implied in Columella[k]: Silente luna fabam vellito ante lucem.

It seems then that even in the time of Columella and Palladius beans were ripe in Italy, about Rome, in June and before midsummer: and the Roman ritual shews that even in the Julian calendar ripe beans were to be had on the Kalends of June for the sacrum *Carnæ Deæ* on that day; which retained its name as the Kalendæ Fabariæ down to the time of the Constantian Calendar, A. D. 355. It could not therefore be otherwise in the time of Numa; when the Kalends of June could never fall earlier than June 5, and might fall as late as July 5, and fell most properly (as in the first year of his cycle) on June 17; only thirteen days before the date of the summer solstice in his time, June 30.

Enough however has been done to illustrate these subjects for the present; though perhaps the custom alluded to by Servius, in his commentary on Virgil's Sparge molam[l], deserves to be noticed from its connection with them. Virgines Vestales tres maximæ ex Nonis Maiis ad pridie Idus Maias

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[e] Ovid, Fasti, vi 173–196.
[f] Georgica, i. 215.
[g] ii. x. § 9.
[h] xi. ii. § 50. p. 755.
[i] vii. Tit. iii.
[k] ii. x. 12.
[l] Eclog. viii. 82.

alternis diebus spicas adoreas in corbibus messuariis promunt; easque spicas ipsæ virgines torrent pinsunt molunt: atque ita molitum condunt. ex quo farre virgines ter in anno molam faciunt: Lupercalibus (Feb. 15 Roman), Vestalibus (June 9 Roman), Idibus Septembribus (Sept. 13 Roman), adjecto sale cocto et sale duro[m].

The description of this process implies that the ears used in it were still green, though approaching to maturity[n]. The specified interval, from the Nones to the Ides of May, in the rectified years of the cycle would answer to May 23—31: and ears of corn at that time might no doubt be found with the grain sufficiently formed to undergo the preparation in question. Numa, says Pliny[o], instituit deos fruge colere, et *mola salsa*[p] supplicare: atque ut auctor est Hemina *far torrere,* quoniam tostum cibo salubrius esset. id uno modo consequutum statuendo non esse purum ad rem divinam nisi tostum. is et Fornacalia* instituit farris torrendi ferias; et æque religiosas Terminis agrorum (i. e. the Terminalia). This ceremony was therefore an institution of Numa's, and as old as the calendar itself†.

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* By these Fornacalia Pliny probably meant the ceremony attached to the same day as the Quirinalia (xiii Kal. Mart.) and called also Stultorum Feriæ, described by Ovid, Fasti, ii. 513—532. Cf. Festus, vi. 152. 8. Fornacalia, and xvii. 533. 12. 14. Stultorum Feriæ. Yet there was a very similar ceremony also on the Vestalia (June 9) described by Ovid, Fasti, vi. 311—318, one of the occasions on which the *Mola* in question was expressly prepared. This is described by Lydus also, De Mensibus, iv. 59. 93. 4. ad v Id. Junias, June 9.

The *ἀλετρίαι* or *ἀλετρίδες* at Athens performed an office there similar to that of these Vestals at Rome. Scholia in Aristophanem, Lysistrata, v. 644: Εἶτ' *ἀλετρὶς ἤ: . . . Γίνονται δέ τινες τῶν εὐγεγονυιῶν ἀλετρίδες τῇ θεῷ παρθένοι, αἵτινες τὰ εἰς τὴν θυσίαν πόπανα ἀλοῦσι. καὶ ἔστιν ἔντιμον τοῦτο. εἰσὶ δὲ καὶ ἱεροὶ μυλῶνες.* Hesychius, Ἀλετρίαι. *γίγνονταί τινες παρθένοι αἵτινες τὰ εἰς τὰς θυσίας πόπανα ἀλοῦσι. καὶ ἔστι τοῦτο ἐπίτιμον.* Cf Eustathius ad Odyss. Υ 105. ii. 228(=724). 30. From Pausanias.

† There was a stated *sacrum* in the month of December also; which serves to illustrate the relation of that month in the calendar of Numa to the natural year: the Sacrum Deæ Angeronæ.

[m] Cf. Festus, iii. 69. 12: Casta mola, genus sacrificii quod virgines Vestales faciebant.

[n] Cf. ad Georgica, i. 267: ad Æn. ii. 133.

[o] H. N. xviii. 2. p. 6.

[p] H. N. xxxi. 41. 637. Maxime tamen in sacris intelligitur auctoritas (salis usus) quando nulla conficiuntur sine mola salsa.

CHAPTER IV.

On the Lemuria of the Roman Calendar. On the Argei, and on the Sexagenarii de Ponte. On the Quirinalia, and on the Birthday of Romulus; and on the day of the Conception of Romulus, and on the eclipse at the Conception.

SECTION I.—*On the Lemuria of the Roman Calendar.*

The institution of the Roman Lemuria was one of the questions which we had occasion to consider in our Fasti

Angeronalia, ab Angerona, cui sacrificium fit in Curia[1]—Namque diva Angerona cui sacrificatur a. d. xii Kal. Januarii ore obligato obsignatoque simulacrum habet[2]—Inter antiquissimas sane religiones sacellum colitur Angeronæ, cui sacrificatur ante diem duodecimum Kalendarum Januariarum. quæ diva præsul silentii istius prænexo obsignatoque ore simulacrum habet[3]—Angeronæ deæ sacra a Romanis instituta sunt cum angina omne genus animalium consumeretur[4]—Julius Modestus ideo sacrificari huic deæ dicit quod populus morbo qui angina dicitur præmisso voto sit liberatus[5].

The date of this ceremony, xii Kal. Jan. is attested by the Maffæan and the Prænestine calendar[6]. The latter has, opposite to that day, Feriæ Divæ Angeronæ, cui sacrificium in ara Volupiæ. Macrobius speaks[7] also of another sacrifice on the same day to Hercules and Ceres, *sue prægnanti;* which does not appear in these calendars.

The mouth of this goddess it appears was always represented muffled; which Pliny and Solinus seem to have understood as intended in token of silence: as if this goddess among the Romans, like the Harpocrates of the Egyptians, was the goddess of silence and secrecy. But in this construction of the representation, we apprehend, they were mistaken. It is explained by the tradition connected with the institution: that the rites of this goddess were instituted at a time when the people were generally affected by that species of sore throat which is called the quinsey. With such an affection as that, the mouth and neck are kept muffled and covered up as matter of course. This Angerona, (as her name itself would have implied,) was the goddess of *quinseys:* and she was represented accordingly.

Solinus however may possibly be in the right, when he speaks of this

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[1] Varro, De Lingua Lat. v. 58.

[2] Pliny, H. N. iii. 9. p. 610.

[3] Solinus, i. §. 6.

[4] Festus, i. 29. 3.

[5] Macrobius, Saturnalia, i. 10. 241.

[6] Apud Foggini. Cf. Macrobius, Saturnalia, i. 12. 241.

[7] Saturnalia, iii. 11. 32.

Catholici[q], in connection with a very important subject; that of the miracle in the time of Hezekiah, and of its proper evidence distinct from that of Scripture. We recur to this question here because we are now in a better condition to do justice to it, than we were before; but we still beg leave to refer our readers to that part of our former work which treats of this miracle in general, and of the proper testimony, extraneous to that of Scripture, by which it admits of being confirmed[q].

The external phenomena of the miracle for the latitude and meridian of Rome exhibited a striking resemblance to the circumstances of the death of Romulus; which had happened May 26 B. C. 715, as this miracle did May 31 B. C. 710, just five years and five days afterwards. The construction to which it was evidently calculated to give occasion was the same which appears to have been actually put upon it; viz. That it was an intimation of the anger of the gods for the still unexpiated death of Romulus: and its first and most immediate effect was the institution of a ceremony, the name and the circumstances of which concur to prove that it could not have been intended for any purpose but that of appeasing the manes of the dead—the ceremony of the Lemuria.

This ceremony is described by Ovid, in connection with the vii Idus Maias[r].

Hinc ubi protulerit formosa ter Hesperus ora,
Ter dederint Phœbo sidera victa locum;

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sacrum as one of the most ancient at Rome. At least we may take it for granted that though not so old as Numa it must have been instituted while his calendar was still in use. And in this its date is remarkable; December 19 Roman. The earliest date of the Kalendæ Decembres in his cycle was November 30, the latest December 30: the normal or proper date, that of the first year of the cycle, was December 12: so that the xii Kal. Jan. in his calendar could not fall earlier than December 18 nor later than January 17, and would fall most properly December 30. At no period then in the natural year for the climate of Rome could such an affection as the quinsey be more likely to be generally prevalent than at that which coincided with Numa's December in general, and with the proper date of this Sacrum Angeronæ in his December in particular; almost the winter solstice itself in his time.

[q] Fasti Catholici, i. 355, note. Diss. v. ch. iv. Cf. iv. 595 sqq. Appendix, ch. iv.

[r] Fasti, v. 419—492.

Ritus erit veteris nocturna Lemuria sacri:
Inferias tacitis manibus illa dabunt.

It appears from the description i. That the proper period in the noctidiurnal cycle at which it was celebrated was midnight.

Nox ubi jam media est somnoque silentia præbet,
Et canis et variæ conticuistis aves!
Ille memor veteris ritûs timidusque deorum
Surgit: habent gemini vincula nulla pedes.
Signaque dat digitis medio cum pollice junctis
Occurrat tacito ne levis umbra sibi[s].

ii. That while it was going on it was anciently the practice (and therefore no doubt from the first) to close the other Fana or chapels, and to keep them closed until it was over.

Fana tamen veteres illis clausêre diebus,
Ut nunc ferali tempore operta vides[t].

iii. That the ritual of the ceremony itself was of the simplest kind. The priest who officiated did no more than wash his hands in spring water, a certain number of times, and then throw black beans a certain number of times also behind him.

Terque manus puras fontana perluit unda;
Vertitur, et nigras accipit ante fabas:
Aversusque jacit: sed dum jacit Hæc ego mitto,
His inquit redimo meque meosque fabis[*].
Hoc novies dicit, nec respicit. umbra putatur
Colligere et nullo terga vidente sequi.
Rursus aqua tangit Temesæaque concrepat æra,
Et rogat ut tectis exeat umbra suis.
Cum dixit novies Manes exite paterni,
Respicit et pure sacra peracta putat[u].

iv. Its proper duration was three days, but not three days one after another.

Sed tamen hæc non sunt sub eodem tempore festa
Inter se nullo continuata die[w].

There was a day's interval between the first and second day; and a day's interval between the second and third.

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[s] Fasti, v. 429.

[t] Ibid. 485.

[*] Cf. Festus, vi. 144. 1. Fabam: also Varro, Fragmenta, 241. apud Nonium; voce Lemures: Quibus temporibus, (no doubt the Lemuria,) in sacris fabam jactant noctu; et dicunt se Lemures domo extra januam ejicere.

[u] Fasti, v. 435—444.

[w] Ibid. 491.

They lasted therefore nominally from the vii Idus Maias in the calendar to the iii Idus Maias; from May 9 Roman to May 13: but the three days of the ceremony were properly the vii Idus Maias, May 9, the v Idus Maias, May 11, and the iii Idus Maias, May 13, respectively[x].

With regard to the name of the ceremony, Lemuria; it is evident that it must have been derived from Lemures. The Lemuria were the sacra Lemurum. The question is then what was denoted by Lemures. It appears from Ovid that this word meant among the Romans precisely the same thing which we should understand to be meant by *spirits* or *ghosts*.

Mox etiam Lemures animas dixere silentûm.
Is verbi sensus vis ea vocis erat[y].

In the course of time indeed it came to be used as synonymous with hobgoblin, or with any imaginary object of dread.

Somnia terrores magicos miracula sagas
Nocturnos Lemures portentaque Thessala rides[z].

Tunc nigri Lemures ovoque pericula rupto[a].

But its proper signification originally appears to have been that of the souls or spirits of men, disengaged from the body; in themselves indeed considered to be of a nature akin to that of δαίμονες, an intermediate order of beings between gods and men: divisible also into good and bad, both denoted in common by this word Lemures in general; but the former properly called Lares, the latter Larvæ. Est et secundo significatu species dæmonum, animus humanus emeritis stipendiis vitæ corpore suo abjurans. hunc vetere Latina lingua reperio Lemurem dictitatum. ex hisce ergo Lemuribus qui posterorum suorum curam sortitus placato et quieto numine domum possidet Lar dicitur familiaris: qui vero ob adversa vitæ merita nullis bonis sedibus incerta vagatione ceu quodam exsilio punitur, inane terriculamentum bonis hominibus ceterum noxium malis, id genus plerique Larvas perhibent. cum vero incertum est quæ cuique eorum sortitio evenerit, utrum Lar sit an Larva, nomine Manem deum nuncupant[b] — Dicit

[x] Cf. the Maffæan and the Venusine calendar apud Foggini.

[y] Fasti, v. 483.

[z] Horace, Epp. Lib. ii. ii. 208.

[a] Persius, v. 185.

[b] Apuleius, De Deo Socratis, ii. 237.

quidem (Plato) animas hominum dæmones esse, et ex hominibus fieri Lares, si boni meriti sunt, Lemures si mali seu Larvas; Manes autem deos dici si incertum est bonorum eos seu malorum esse meritorum[c].

With regard to the origin of this ceremony, and to the name given it at first, Ovid begins with confessing his ignorance.

> Dicta sit unde dies, quæ nominis exstet origo,
> Me fugit; ex aliquo est invenienda deo[d].

From which we may fairly conclude that the account which he proceeds to subjoin of both, though proposed on the authority of Mercury[e], must have been purely conjectural. It amounts in substance to *this;* That the Lemuria were a ceremony instituted by Romulus, and intended to appease the manes of his brother Remus; and even that recognizes its connection with the peace of the dead from the first. Consequently that its name originally was Remuria; which in the course of time had been changed to Lemuria.

> Romulus obsequitur: lucemque Remuria dixit
> Illam qua positis justa feruntur avis.
> Aspera mutata est in lenem tempore longo
> Littera quæ toto nomine prima fuit.
> Mox etiam Lemures animas dixere silentûm.
> Is verbi sensus vis ea vocis erat[f].

So that on this principle Lemures, in the sense of the Manes of the dead in general, was derived from Lemuria, the name of a ceremony of that kind in honour of the manes of Remus; that is, one of the dead in particular: which every one must allow to be absurd, contrary to the reason of things, and to the natural order and association of ideas. It is certain that the Lemuria took their name from the Lemures, not the Lemures from the Lemuria. The Lemures were an earlier conception than the Lemuria. The name of this ceremony then must always have been Lemuria; only, as the second syllable in Lemures was short, possibly the name of the ceremony derived from it might originally be Lemurria, and afterwards become Lemūria.

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[c] Augustin, De Civitate Dei, ix. 11. Cf. Festus, x. 199. 8. Laneæ effigies: 200. 4. Larvati. Plutarch, Quæstiones Romanæ, li. Arnobius, iii. 124: Possumus, si videtur, summatim aliquid et de Laribus dicere, quos arbitratur vulgus vicorum atque itinerum deos esse, ex eo quod Græci vicos cognominant lauras. in diversis Nigidius scriptis modo tectorum domuumque custodes . . . Varro similiter hæsitans nunc esse illos Manes, et ideo Maniam matrem esse cognominatam Larum; nunc aërios rursus deos, et heroas, pronunciat appellari: nunc antiquorum sententias sequens larvas esse dicit Lares, quasi quosdam genios et functorum animas mortuorum.

[d] Fasti, v. 445.

[e] Ibid. 447–484.

[f] Ibid. 479–484.

There was certainly such a word as Remuria, Remoria, Romoria, or Remonia, transmitted from the times of Romulus and Remus[g]; but it seems to have been the name of a certain locality on the Aventine hill, Ubi (Remus) de urbe condenda fuerat auspicatus: and besides it was a noun substantive in the feminine gender and singular number; Lemuria is a noun substantive in the plural number and the neuter gender. This explanation of Ovid's however, as we have already observed, cannot be considered historical. It is almost self-evident that the peculiar rule of this ceremony could not have been intended for any calendar but Numa's; and that the ritual of the ceremony in particular was eminently characteristic of Numa: and as it was confessedly of great antiquity we should probably not be mistaken if we took it for granted that it must have been instituted and prescribed by Numa himself.

Let us therefore proceed to inquire what light the Primitive equable calendar, the Nundinal calendar of Romulus, and the calendar of Numa are calculated to throw on the peculiar rule of the institution; on its date; and on the fact of its being attached to three days, but not one after another. For this purpose we must begin with exhibiting the the first four or five months in each, both B.C. 715 and B.C. 710.

Primitive Calendar.

Æra Cycl. 3292. Nab. 33. B.C. 715				
Thoth	1	Feb.	18	mid.
Phaophi	1	March	20	—
Athyr	1	April	19	—
Chœac	1	May	19	—
Chœac	8	May	26	midn.
Chœac	9	May May	26 at 18h. 27 at mid.	

Æra Cycl. 3297. Nab. 38. B. C. 710				
Thoth	1	Feb.	17	mid.
Phaophi	1	March	19	—
Athyr	1	April	18	—
Chœac	1	May	18	—
Chœac	9	May	26	mid.

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[g] Dionysius Hal. i. 86. Plutarch, Romulus, ix. xi. Auctor, De Origine Urbis Romæ, i. 23. l. 20. Festus, xvi. 439. 7 : 10 : Remurinus Ager.

Nundinal Calendar.

Cycle viii. 1. B. C. 715				——	Cycle ix. 1. B. C. 710			
Martius	Jan.	20	mid.		Martius	Jan.	18	mid.
Aprilis	Feb.	20	—		Aprilis	Feb.	18	—
Maius	March	21	—		Maius	March	19	—
Junius	April	21	—		Junius	April	19	—
Quinctilis	May	20	—		Quinctilis	May	18	—
7 Quinctilis	May	26	—		7 Quinctilis	May	24	—

Calendar of Numa.

Cycle i. 3. B. C. 710.				——	Roman.					Julian.	
Januarius	Feb.	19	mid.		vii	Id.	Maias	May	9	May	27
Martius	March	20	—		v	—	—	—	11	—	29
Aprilis	April	20	—		iii	—	—	—	13	—	31
Maius	May	19	—								
					Idus	Maiæ		May	15	June	2

Now as we argued before[h] the date of the death of Romulus, May 26 at or about sunset B. C. 715, might have been reckoned in the Primitive calendar either Chœac 8, dated from sunset, May 25–26, or Chœac 9; which would begin at sunset May 26 according to the Primitive rule, but according to the Julian rule May 27 at midnight: and Chœac 9 reckoned from May 27 at midnight B. C. 715, and vii Idus Maias, cycle i. 3 of the calendar of Numa, May 27 at midnight also B. C. 710, would be the same. In the Nundinal calendar May 27 at midnight B. C. 715 corresponded to Quinctilis 8 at midnight, cycle viii. 1; and Quinctilis 8 at midnight, cycle ix. 1. corresponded to May 25 at midnight B. C. 710: two days earlier than May 27 at midnight, Chœac 9 at midnight, B. C. 715, and vii. Idus Maias, cycle i. 3 of the calendar of Numa.

The true date then of the death of Romulus B. C. 715 might be considered by Numa the equable Chœac 9 reckoned from midnight, May 27 at midnight: and the nominal date B. C. 710, Quinctilis 8 at midnight, May 25 at midnight. Between these there was a difference of two days: so that, if the Lemuria in his own calendar cycle i. 3. B. C. 710 were attached to the latter, they must anticipate two days on the true date; if they were attached to the former they must be two days later than the nominal date. He appears to have decided on this latter alternative, in order that the ceremony might begin on May 27, the assumed date of the death of Romulus, B.C. 715, and end on May 31—the date of the miracle B.C. 710; and might occupy three days in all, at the interval of one day asunder: May 27, May 29, and May 31. For the last day being fixed to May 31, and the first to May 27, the second day could not be consistently attached to any date but May 29. These three days B.C. 710 corresponded to vii Idus Maias, v Idus Maias, and iii Idus Maias, in his own calendar cycle i. 3 respectively; and these consequently became the three days of the Lemuria.

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[h] Fasti Catholici, i. 357 note.

The day of the death of Romulus B.C. 715 May 26 was the new moon; and the day of the miracle B.C. 710 May 31 was the new moon also. The former being assumed May 27 at midnight the latter May 31 at midnight; it is evident that the last day of the Lemuria was as strictly to be referred to the latter as the first day to the former. It follows that the entire interval intended to be occupied by this ceremony could not have been more than the five days from May 27 at midnight to May 31 at midnight; in which case, unless it was intended to occupy all these five days, there would be no other alternative except to distribute them into three periods: the first for the beginning of the ceremony, the third for the end, and the second for the middle point of time between them; which appears to have been done accordingly.

We cannot help concluding therefore that the history of this institution, and the investigation of the reasons on which its peculiar rule seems to have been founded, are eminently calculated not only to illustrate the Pompilian calendar, and to verify the traditional accounts of the death of Romulus, but, what is more, to place in a clearer and stronger light the simple truth of the miracle in the time of Hezekiah, by this proof of the effect which it produced at Rome in particular. We have already shewn[i] that the change in the rule of the reckoning of the noctidiurnal cycle, from the primitive one of sunset to the Julian one of midnight, is probably to be traced up to it likewise; and would have been the effect of it under the circumstances of the case at Rome in particular, even though there had been nothing to give occasion to such an institution as that of the Lemuria also. It is very observable that the ceremonial of this institution was expressly attached to midnight. We have declared our opinion that the change of the rule of the Noctidiurnal cycle, even at Rome, in the first instance, was intended only for religious or ritual purposes; and it is far from improbable that this change of rule so limited was first exemplified in this contemporaneous institution of the Lemuria.

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[i] Fasti Catholici, i. 354. Diss. v. ch. iv. Sect. viii. Ibid. iv. 611. Appendix, ch. iv. xi.

We shall now proceed to consider another characteristic ceremony of the Roman calendar; which seems to have found its origin in the same motives as this of the Lemuria, and to have been instituted at the same time: that of the Sexagenarii de Ponte.

SECTION II.—*On the Argei, and on the Sexagenarii de Ponte, of the Roman Calendar. Testimonies.*

i. Οὐδὲν οὖν θαυμαστὸν τοὺς παλαιοὺς ἱερὰν ὑπολαβεῖν τοῦ Κρόνου τὴν χώραν ταύτην...εἴτε Χρόνον αὐτὸν δεῖ καλεῖν ὡς Ἕλληνες ἀξιοῦσιν εἴτε Κρόνον ὡς Ῥωμαῖοι...λέγουσι δὲ καὶ τὰς θυσίας ἐπιτελεῖν τῷ Κρόνῳ τοὺς παλαιοὺς ὥσπερ ἐν Καρχηδόνι τέως ἡ πόλις διέμεινε, καὶ παρὰ Κελτοῖς εἰς τόδε χρόνου γίνεται, ἀνδροφόνους. Ἡρακλέα δὲ...διδάξαι τοὺς ἐπιχωρίους ἀπομειλιττομένους τὴν τοῦ θεοῦ μῆνιν ἀντὶ τῶν ἀνθρώπων, οὓς συμποδίζοντες καὶ τῶν χειρῶν ἀκρατεῖς ποιοῦντες ἐρρίπτουν εἰς τὸ Τιβέριος ῥεῖθρον, εἴδωλα ποιοῦντας ἀνδρείκελα κεκοσμημένα τὸν αὐτὸν ἐκείνοις τρόπον ἐμβαλεῖν εἰς τὸν ποταμόν...τοῦτο δὲ καὶ μέχρις ἐμοῦ διετέλουν Ῥωμαῖοι δρῶντες ὅσον τι μικρὸν ὕστερον ἐαρινῆς ἰσημερίας ἐν μηνὶ Μαΐῳ ταῖς καλουμέναις ἰδοῖς, διχομηνίδα βουλόμενοι ταύτην εἶναι τὴν ἡμέραν· ἐν ᾗ προθύσαντες ἱερὰ τὰ κατὰ τοὺς νόμους οἱ καλούμενοι Ποντίφικες, ἱερέων οἱ διαφανέστατοι, καὶ σὺν αὐτοῖς αἱ τὸ ἀθάνατον πῦρ διαφυλάττουσαι παρθένοι, στρατηγοί τε καὶ τῶν ἄλλων πολιτῶν οὓς παρεῖναι ταῖς ἱερουργίαις θέμις, εἴδωλα μορφαῖς ἀνθρώπων εἰκασμένα τριάκοντα τὸν ἀριθμὸν ἀπὸ τῆς ἱερᾶς γεφύρας βάλλουσιν εἰς τὸ ῥεῦμα τοῦ Τιβέριος, Ἀργείους αὐτὰ καλοῦντες[k]—Διὰ τί τοῦ Μαΐου μηνὸς ἀπὸ τῆς ξυλίνης γεφύρας εἴδωλα ῥιπτοῦντες ἀνθρώπων εἰς τὸν ποταμὸν Ἀργείους τὰ ῥιπτούμενα καλοῦσιν; ἢ τὸ παλαιὸν οἱ περὶ τὸν τόπον οἰκοῦντες βάρβαροι τοὺς ἁλισκομένους Ἕλληνας οὕτως ἀπώλλυσαν; Ἡρακλῆς δὲ θαυμασθεὶς ὑπ'

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[k] Dionysius Hal. i. 38. Cf. Eusebius, Præp. Evang. iv. 16. 341. 13.

αὐτῶν ἔπαυσε μὲν τὴν ξενοκτονίαν ἐδίδαξε δὲ τὸ ἔθος καὶ τὴν δεισιδαιμονίαν ἀπομιμουμένους εἴδωλα ῥιπτεῖν; Ἀργείους δὲ τοὺς Ἕλληνας οἱ παλαιοὶ πάντας ὁμαλῶς προσηγόρευσαν[l]—*Διὰ τί τοῦ Μαΐου μῆνος οὐκ ἄγονται γυναῖκας;...ἦ ὅτι τῷ μηνὶ τούτῳ τὸν μέγιστον ποιοῦνται τῶν καθαρμῶν νῦν μὲν εἴδωλα ῥιπτοῦντες ἀπὸ τῆς γεφύρας εἰς τὸν ποταμὸν πάλαι δ' ἀνθρώπους; διὸ καὶ τὴν Φλαμινίκαν ἱερὰν τῆς Ἥρας εἶναι δοκοῦσαν νενόμισται σκυθρωπάζειν, μήτε λουομένην τηνικαῦτα μήτε κοσμουμένην. ἢ ὅτι πολλοὶ Λατίνων ἐν τῷ μηνὶ τούτῳ τοῖς κατοιχομένοις ἐναγίζουσι*[m];

ii. Saturnio in carmine,

Libaque fictores Argeos et tutulatos[n]:

liba quod libandi caussa fiant: fictores dicti a fingendis libeis. Argei ab Argis. Argei fiunt e scirpieis virgulteis. simulacra sunt hominum triginta. ea quotannis a ponte sublicio a sacerdotibus publice jaci solent in Tiberim. tutulati dicti hi qui in sacreis in capitibus habere solent ut metam[o]—Argea loca Romæ appellantur quod in his sepulti essent quidam Argivorum illustres viri[p]—Argeos vocabant scirpeas effigies, quæ per virgines Vestales annis singulis jaciebantur in Tiberim[q].

iii. Cum in quintum gradum pervenerant atque habebant sexaginta annos tum denique erant a publicis negotiis liberi atque otiosi. ideo in proverbium quidam putant venisse ut diceretur Sexagenarios de ponte dejici oportere; id est quod suffragium non ferant, quod per pontem ferebatur[r]—Depontani senes appellabantur qui Sexagenarii de ponte dejiciebantur[s]—Sexagenarios de ponte olim dejiciebant. cujus caussam Manilius hanc refert quod Romam qui incoluerint primi Aborigines hominem sexaginta annorum qui esset immolare Diti patri quotannis soliti fuerint; quod facere eos destitisse adventu Herculis: sed religione postea veteris moris scirpeas hominum effigies de ponte in Tiberim vetere modo mittere instituisse. alii dicunt morante in Italia Hercule quod quidam ejus comitum habitaverint secundum ripam Tiberis, atque Argæos se ab Argivis vocaverint arvis. quorum proditum memoriam redintegrari. eo gente missum ab Græca legatum quendam Argæum diu cum iis Romæ moratum esse. hic ut obierit institutum a sacerdotibus ut effigies scirpea ex omnibus cum quæ publicæ erant rei nuntiavisset per flumen ac mare in patriam remitteretur. sunt qui dicant post urbem a Gallis liberatam ob inopiam cibatus cœptos sexaginta annorum homines jaci in Tiberim. ex quo numero unus filii pietate occultatus sæpe profuerit patriæ consilio sub persona filii. id ut sit cognitum ei juveni esse ignotum, et sexagenariis vita concessa. latebras autem ejus quibus arcuerit senem, id est cohibuerit et celaverit, sanctitate dignas esse visas; ideoque Arcæa appellata. sed exploratissimum illud est caussæ, quo tempore primum per pontem cœperunt comitiis suffragium ferre juniores conclamaverunt ut de ponte dejicerentur sexagenarii, qui jam nullo publico munere fungerentur, ut ipsi potius sibi quam illi deligerent imperatorem. cujus sententiæ est etiam Sinnius Capito. vanam autem opinionem esse de ponte Tiberino confirmavit Afranius in Repudiato[t].

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[l] Plutarch, Quæstiones Romanæ, xxxii.

[m] Ibid. lxxxvi. Cf. Ovid, Fasti, v. 425–427.

[n] From Ennius, see Festus, xviii. 581. 15. Tutulatos.

[o] Varro, De Lingua Lat. v. 89, 90.

[p] Festus, i. 36. 10. cf. in Libycus Campus, x. 204. 15.

[q] Ibid. 13.

[r] Varro, Fragmenta, 242. E lib. ii. De Vita Populi Romani.

[s] Festus, iv. 117. 13. Cf. Arnobius, ii. 91.

iv. Tum quoque priscorum Virgo simulacra virorum
Mittere roboreo scirpea ponte solet.
Corpora post decies senos qui credidit annos
Missa neci sceleris crimine damnat avos.
Fama vetus; tum cum Saturnia terra vocata est
Talia fatidici dicta fuere dei:
Falcifero libata seni duo corpora gentes
Mittite quæ Tuscis excipiantur aquis.
Donec in hæc venit Tirynthius arva quotannis
Tristia Leucadio sacra peracta modo.
Illum stramineos in aquas misisse Quirites:
Herculis exemplo corpora falsa jaci.
Pars putat ut ferrent juvenes suffragia soli
Pontibus infirmos præcipitasse senes.
Tibri! doce verum. tua ripa vetustior Urbe:
Principium ritûs tu bene nosse potes.
Tibris arundiferum medio caput extulit alveo
Raucaque dimovit talibus ora sonis.

* * * *

Arcadis Evandri nomen tibi sæpe refertur:
Ille meas remis advena torsit aquas.

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Magnaque pars horum desertis venerat Argis,
Montibus his ponunt spemque laremque suum.

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[t] Festus, xvii. 504. 1.

Sæpe tamen patriæ dulci tanguntur amore,
  Atque aliquis moriens hoc breve mandat opus :
Mittite me Tiberi, Tiberinis vectus ut undis
  Litus ad Inachium pulvis inanis eam.
Displicet heredi mandati cura sepulcri,
  Mortuus Ausonia conditur hospes humo.
Scirpea pro domino Tiberi jactatur imago
  Ut repetat Grajas per freta longa domos[u].

SECTION III.—*Remarks and inferences.*

The above statements and testimonies recognize the great antiquity of this ceremony; but they do not apparently connect it in any manner with Numa Pompilius. And yet a very little reflection will convince us that, in the form and under the name in which and by which they describe it, it could not have been older than Numa, and it must have been instituted by him.

In the first place, it does not appear that this ceremony was known or supposed to have been ever performed except in one month, the month of Maius, or on any but one day in that month, the Idus; nor that this month of Maius was ever any but the Maius of Numa, the month so called in the calendar of Numa, not in that of Romulus, and fixed by its site in that calendar to a certain season of the natural year, which did not much differ from that of the Julian May itself. If so, the ceremony above described could not have been older than the correction of the calendar by Numa.

In the next place, it could not be performed except in one locality, that of the Pons Sublicius over the Tiber. Now this bridge in particular could have had no existence before the foundation of Rome. Consequently neither could the ceremony as above described, performed on it.

Thirdly, it could not be performed, as above described, except by the Pontiffs, and the Vestal virgins; and the most important part of the ceremony, (that of casting the images made of wicker work or basket wood, used on the occasion, with their own hands into the Tiber,) could be performed, it seems, only by the Vestal virgins. The Pontiffs were present, and present *ex officio*, as well as they, while the ceremony was going on; but the act which gave its name to the ceremony must be performed by them. So that they and not the Pontiffs were the principal agents in it; and if this act was a sacrifice in any sense they and not the Pontiffs were the ministers by whom it was offered. The Pontiffs appear to have been also present because the stated locality of the ceremony was the Pons Sublicius; and the Pons Sublicius was under their care, and every act of religion done upon it must be done in their presence, if not under their superintendance.

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[u] Ovid, Fasti, v. 621–660. On the Ides of May.

Now whether the order of Vestals at Alba, or any where else in the neighbourhood of Rome, might be older than Numa or not; it is agreed that this order at Rome was not older than Numa. The temple of Vesta at Rome was founded by Numa: and the first Vestals taken, as it was termed, for its service there were taken, i. e. ordained and consecrated, by Numa[w]. It is still more certain that the order or college of Pontiffs was instituted by Numa; and that there was no such order yet in existence at Rome before the time of Numa. If then this ceremony was always performed at Rome by the Pontiffs and the Vestal virgins, that fact in particular ought to be decisive that at Rome it could not have been older than Numa, though it might be as old as Numa.

Fourthly, it appears that the number of the images thus annually cast into the Tiber was fixed; and could be neither more nor less than *thirty*. We give this number a meaning, and we account also for its being limited in this manner, if we suppose it to have been taken from the only division of the people at Rome, which, from the time of the Foundation to that of Numa, was competent to include them all, both the Senators and the Plebes; viz. that of the Thirty Curiæ, ten for each of the three Tribes: for it is agreed that this division was as old as the city, having been made by Romulus himself[x]; and that none else as yet existed in the time of Numa. These thirty images then might have been intended for the thirty Curiæ, one for each; and through them for the whole of the Civitas or body politic at Rome:

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[w] Supra, p. 173.

[x] Dionys. Hal. ii. 7. 23. 64. Livy, i. 13. Plutarch, Romulus, xx. Festus, iii. 107. 6. Curia: xii. 283. 3. Novæ Curiæ: Servius, ad Æn. viii. 638: ix. 370.

and such an institution with such a reference would have been entirely consistent with the constitution of the Roman community in the time of Numa.

Fifthly, as this ceremony was fixed to the Ides of May, that is, to the *fifteenth* of the same month of which the Lemuria were fixed to the *ninth*, the *eleventh*, and the *thirteenth* respectively; it is evident that the calendar date of this ceremony bore precisely the same relation to that of the third day of the Lemuria, as that did to the calendar date of the second day, or that of the second day to that of the first day: and had the Lemuria been appointed to last four days instead of three, beginning nevertheless on the vii Idus Maias as before, and being celebrated only every other day as before, the Ides of the month must have been the fourth day of that ceremony of which the vii Idus was the first. Nor could any one deny that a ceremony like this of the Ides was well adapted in its own nature to continue and complete even one like that of the Lemuria on the three preceding days; that the act which was characteristic of this day might not have had a peculiar meaning and import as much as the Lemuria themselves; and therefore might not have been a very appropriate termination of a series of rites extending over a stated number of days, all of them confessedly of that character. It is far from improbable consequently that this ceremony of the Ides of May, whether formally designated in the calendar as a continuation of the Lemuria or not, did virtually stand in that relation to them; and was intended not only to take up and prosecute what had been begun in them, but also to complete it.

If then we have succeeded in rendering it morally certain that the final end of the institution of the Lemuria was to appease the manes of Romulus; it is an obvious inference from that fact that this ceremony of the Ides of May might have been intended for the same purpose. It is manifestly possible that these thirty images, (which their number itself would imply to have had a direct and designed reference to the thirty Curiæ,) might have been intended to represent the whole of the Roman community, as summed up and comprehended in those Curiæ; and, if the death of Romulus could not be laid to the charge of one part of that community more than another, it must so far have entailed a common guilt upon the whole: the best mode of atoning for which in behalf of the whole might seem to be this offering of one image vicariously for each of the parts into which it was divisible; that is, the thirty Curiæ. Such an expedient at least, and with such an end in view, would be entirely in unison with the disposition and character of Numa, and with other facts of his personal history which are upon record; especially that of his interview with Jupiter Elicius[y]: to which we would not be understood to refer as an historical incident or actual matter of fact, but simply as to something which has been left on record, calculated to illustrate the character of Numa, or the opinion which posterity entertained of it. Nothing could be more consistent with the temper and frame of mind which appears in this traditionary anecdote, than the idea of making atonement for a guilt or pollution, which affected the whole of the Roman community, on a scale as large as the extent of the pollution itself; but *vicariously*: that is not in their own persons, but in and through representations of a certain kind, supposed to be made in their likeness, and purposely substituted for them.

And this leads us to observe further That it appears to have been always understood that these images were not those of young persons, nor of persons of confirmed age; but of persons advanced in years. It appears too that they were always the images of men, of that time of life, and never of women. Their proper description and designation from the first was that of Sexagenarii; old men in the strictest sense of the term, especially among the Romans who began to apply the name of old men even to persons of 50 years of age[z], much more to persons of 59 or 60 years of age. We explain this designation too, and we give it a very significant meaning, if we suppose them intended from the first of the ὁμήλικες, *æquales*, or equals in years, of Romulus himself; persons as old B. C. 710 as Romulus himself would have been, had he been alive at that time. We hope to consider the question of the date of the birth of Romulus by and by, and to see reason to conclude that it must have been B. C. 769; on which principle, he would have been actually 59 or 60 years of age in B. C. 710, had he been then alive.

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[y] Valerius Antias apud Arnobium, v. 154–157. Ovid, Fasti, iii. 327–348. Plutarch, Numa, xv. Cf. Livy, i. 20, 21.

[z] Cf. our Dissertations on the Principles and Arrangement of an Harmony of the Gospels, iii. 537. 605. ed. 1837.

We explain too, upon this principle, that other peculiarity of the ceremony to which we have adverted; viz. the offering of these images annually not by the hands of the Pontiffs but by those of the Vestal virgins. The Pontiffs belonged to that half of the Roman community for which this very offering was intended to make an atonement; viz. the men: and of this half itself none were so likely to correspond literally to the description of Sexagenarii as they. The Vestals belonged to the other half, that of the women; and it does not appear that this part of the community was ever supposed to have been implicated either directly or indirectly in the mysterious disappearance of Romulus: or that it could possibly have had any thing to answer for on that account. The Vestals too, and especially those whom Numa himself had just ordained for the first time, B. C. 710 must have been very young persons. It is agreed that they were the most sacred order of the ministers of religion at Rome; that they were the types of purity, innocence, and sanctity itself: and not only faultless in those respects themselves, but the fittest and most capable of extending the benefit of the same qualities, by their own instrumentality and intercession, to others who wanted them. No atonement was so likely to be effectual as one made through them. No vicarious sacrifice could be so acceptable to its object as one which should be offered by them. For this reason the Vestals were appointed to have the principal share in the ceremony of this day. These images must be cast into the Tiber by their hands, and not even by those of the supreme Pontiff himself in their stead; if they were to answer the purpose intended by them: that of expiatory sacrifices for some common guilt which affected the whole of the male population of Rome, and especially of that part of it which was most advanced in life.

We have not however as yet expressly adverted to the fact which appears also from the testimonies produced *supra*; viz. that, besides the name and description of Sexagenarii, these images had likewise the name of Argei. The popular name for them down to the latest times was Argei. And this name itself is one among the other proofs which serve to connect the institution of the ceremony with the reign of Numa, and even with the beginning of his reign itself. One of the first acts of Numa according to Livy was the foundation of the college of Pontiffs, and the prescription of their proper duties; among which he mentions expressly a certain class which concerned such persons or such places as went by the name of Argei, either before the institution of the college, or from that time forward, and because the pontiffs gave them that name themselves. Multa alia sacrificia locaque sacris faciendis quæ Argeos pontifices vocant dedicavit[a]. Whether places or ceremonies are here meant by this reference to the Argei does not appear; but whichever of the two might be intended by the name, the name itself must have been as old as the college of Pontiffs at least, and possibly even older.

It appears in fact from Varro that anciently almost the entire city of Rome must have been divided into what he calls the Argeorum sacraria: of which there were 27. Reliqua urbis loca olim discreta; ut Argeorum sacraria in septem et viginti parteis urbis sunt disposita: and many of these are particularly described by him[b]. The meaning of this statement seems to be that excepting those places which he had just mentioned, (the Capitoline and the Aventine hills, neither of which in the time of Numa properly made part of the city,) these Argeorum Sacraria took in the whole of Rome, as it then was. He adds, Argeos dictos putant a principibus qui cum Hercule Argivo venerunt Romam, et in Saturnia subsederunt.

The existence of this name of Argeos at Rome, applied both to places, and to persons, and to ceremonies, is thus traced up to the time of Numa. It follows that, though these images annually cast into the Tiber might have borne such a name from the first, that would be no proof that the act itself, by which they were annually cast into the river, might not have been instituted by Numa. He might himself, for some reason or other, have given a ceremony of his own a name older than its institution. And yet if the number of these Argeorum sacraria was not more than twenty-seven, but that of these images annually cast into the Tiber was certainly thirty; the latter could not have been intended to have an express reference to the former, as they might have had to the thirty Curiæ. And it would follow from this distinction that, even if the name of Argeos was given to these thirty images by Numa, it could not have been given because of any such reference to the Argeorum sacraria. It must have been for some other reason.

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[a] Livy, i. 21. Cf. Ovid, Fasti, iii. 791.

[b] De Lingua Latina, i. 14—17.

The form of the name thus given to these images, as the statements produced above shew, is Argeos: and yet Argeos could have been only the accusative case of such a nominative case as Argei. We must infer then that the name included the ceremony, in connection with which it was usual to think or to speak of them: for as the subjects of an act like this of being cast into the Tiber even these images might be spoken of as Argeos not Argei. Now Argeus in Latin on etymological principles can be derivable from nothing but Argos. It is the Greek Ἀργεῖος at least; and as regularly derived from Ἄργος in Greek as Argivus from Argi or Argos in Latin. Argeus too occurs in Latin writers in cases in which its derivation from Argos cannot be mistaken.

Tibur Argeo positum colono[c].

And on this point in particular the traditionary explanations produced above leave no room for doubt; for they all in some manner or other connect both the act in question and the name by which it was known, in its origin, with the Argei or Argives; either as Greeks in general or as Arcadian Greeks in particular: and either as the followers of Hercules from Argos, or as those of Evander from Arcadia.

A mystery is no doubt connected with the origin of this denomination, which we can scarcely expect at this distance of time satisfactorily to explain; yet something may be done towards clearing it up, by means of the testimonies still upon record, proposed supra: on the supposition at least that, as far as they are consistent with each other and with probability in general, they may be considered to have had some foundation in the matter of fact.

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[c] Hor. Od. ii. vi. 5. Cf. Ovid, Amor. iii. vi. 46.

We observe therefore that there was a certain locality in the city of Rome which went by the name of Argiletum. In the descriptions of the city in after times it made part of the Regio undecima; lying between the Cœlian hill and the Aventine. We observe further that this locality and the name by which it was known were as old at Rome as Numa Pompilius himself; for according to Livy[d] the temple of Janus built by Numa, (the first temple erected to him at Rome,) was built on this spot, Ad infimum Argiletum.

We observe also that this name is not found in any writer of good authority in any form but this of Argiletum; and in particular not in the form of Argilletum, as if it had been derived from Argilla after the same analogy as Palmetum from Palma, or Olivetum from Oliva, or the like: and therefore was merely the denomination given to a certain quarter at Rome where chalk or clay abounded, (argilla*.) We observe too that this word Argiletum, so written, naturally resolves itself into two parts, Argi and Letum; and that it was actually understood by the most accurate and the best informed of the Romans to be so compounded appears from the fact that it is found divided, and made into two terms Argi and Letum.

Argi nempe soles subire Letum[e].

Argique Letum multus obsidet sutor[f].

We observe also that there was an ancient tradition among the Romans which connected the death of a certain Argus with this locality; and therefore, if it was founded on fact, would be competent to explain the name ever after given to the scene of the event, as actually intended of the Argi Letum. Argiletum sunt qui scripserunt ab Argo (dictum), seu quod is huc venit ibique sepultus sit. alii ab argilla quod ibi id genus terræ[g].

It is further observable that the time of this event, which according to tradition gave name to the place, according to tradition also, was about that of the coming of Evander into Italy; that is, not much earlier than the capture of Troy and the arrival of Æneas in Italy. This part of the tradition is most clearly ascertained by the testimony of Virgil; who speaks of the Argiletum as one of the localities pointed out by Evander himself to Æneas, and as even then connected with the death of a certain Argus, and that Argus a contemporary of Evander's, and one who at the very time of his death was actually his guest.

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* It makes no difference that *argilla* itself might anciently have been *argila*, or that, according to the analogy of such terms in Greek, an adjective like *argilletis*, ἀργιλλῆτις or ἀργιλῆτις, might have been derivable from it: though *argilla* in Latin makes *argillaceus* and *argillosus*.

[d] i. 19. [e] Martial, Epigramm. i. 118. [f] Ibid. ii. 17. [g] Varro, De Lingua Lat. iv. 41.

> Necnon et sacri monstrat nemus Argileti;
> Testaturque locum et letum docet hospitis Argi[h].

From which it follows that, among the explanations of the name proposed by Servius in his commentary on the place, none could have been the true one in the opinion of Virgil but that which supposed this Argus to have been the guest of Evander; and while still standing in that relation to him, and consequently entitled to protection and security, to have met with his death upon that locality, in some manner or other, and for some reason or other: most probably at the hands of the followers of Evander himself. Nam Evander Argum quendam suscepit hospitio, qui cum de ejus cogitaret interitu, ut ipse regnaret; Evandro hoc non sentiente socii intellexerunt; et Argum necarunt. cui Evander et sepulcrum fecit et locum sacravit non quod ille merebatur sed hospitalitatis caussa[h]. Such is the tradition recorded by Servius; of which it appears to us that we need to accept only the fact in general that Argus was killed by the followers of Evander: but whether for the reason assigned, or under some excusable misapprehension or other, may well be considered an open question. The latter only is consistent with the honours paid to him by Evander himself after his death; and the latter only also, to judge from the context of the passage above quoted, must have been Virgil's construction of the fact of his death.

It is therefore far from improbable that among the other memorials of this Argus and of his untimely end one might have been the institution of an annual ceremony in honour of his Manes, like this of the Scirpea simulacra at Rome; devised by Evander himself, and intended as a kind of expiation of his death. And if that death, howsoever chargeable *de facto* on the followers of Evander, was after all an accident of some kind or other, a misfortune or mischance rather than a crime; a more natural and probable mode of making atonement for it, in the shape of vicarious likenesses of those who had caused it, than this can scarcely be conceived. Such likenesses too would be understood from the first to have been those of the followers of Evander; that is of Argives, in the sense of Greeks in general: and therefore their name from the first would be that of Argei also.

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[h] Æneid, viii. 345.

It is very observable too that all the traditionary explanations of this ceremony produced above connect its origin, as a *vicarious* and not a *real* sacrifice, with the coming into Italy of the Grecian Hercules; and attribute this change in its nature and circumstances, from a real sacrifice of its kind to the likeness or semblance of a real one, to the Grecian Hercules himself. In our opinion this supposition of an older ceremony of the same kind which consisted in the actual sacrifice of human victims, (in Italy in particular, and in the times of Saturn, which the Italic tradition of those times made the golden age itself, the age of innocence and happiness under the mild and beneficent reign of Saturn himself,) is confuted by its own incompatibility with the character of those times themselves. But with respect to the change in the nature even of a real sacrifice of this kind attributable to the Grecian Hercules, and bearing date in point of fact from the time of his coming to Italy; that is substantially the same as the institution of a vicarious sacrifice of the same kind, and intended for the same end and purpose, in the time of Evander and by Evander himself: for even the Grecian Hercules of this tradition was the contemporary of Evander, and his actual coming to Italy was not much later than that of Evander himself, nor much earlier than that of the coming of Æneas also. Hercules had been but recently the guest of Evander, according to Virgil, when Æneas became so too.

With regard indeed to the Grecian Hercules or to the Italian Recaranus, (under which latter name the former enters most properly into this Italian tradition[i],) whether there was ever an actual person so called, and whether he could have lived and visited Italy in the time of Evander; these are questions on which we do not consider it necessary to enter at present. Evander on the contrary is an historical personage; connected with the early history of Rome and with the locality of Rome from the first: yet older than Rome itself. The conclusion therefore to which, as it appears to us, we may come on this question of the first origin and of the first and proper name of the ceremony of the Scirpea simulacra, in all probability is *this;* That there was a more ancient ceremony of the same kind, annually performed in the same quarter in general, which had been instituted by Evander as a means of atoning for the death of a certain Argus at the hands of his own followers, howsoever occasioned: That in this too the likenesses of men were substituted for men themselves, and very probably in the form of Scirpea simulacra, images of wicker or basket work, also; That the atonement consisted in throwing these also into the Tiber every year, instead of men themselves, as an offering to the Manes of Argus: That their proper name consequently was necessarily Argei, either as the likenesses of Argives, or as offerings made to Argus, and as the right and property of Argus: That as to the number of these images, to judge from the analogy of the Argeorum sacraria of after times, it could not have exceeded twenty-seven, and was certainly less than thirty, the number peculiar to the same ceremony of after times as modified in some of its circumstances, and instituted afresh, by Numa.

It follows consequently that Numa could not have been strictly the first author of the Scirpea simulacra: he must have borrowed such a ceremony in his own calendar from an earlier one of the same kind. Finding this earlier one actually in existence, and actually connected with an event something like that of the death of Romulus, and actually applied as a means of atonement for it; he transferred it to his own calendar as an additional means of the expiation of the death of Romulus also. The change in the ceremony made by him consisted consequently in thus connecting it with the death of Romulus as well as with that of Argus; and in increasing the number of images from twenty-seven to thirty, one for each of the Curiæ or general divisions of the people of Rome: and in proposing and setting them forth under their new name of the Sexagenarii, the ὁμήλικες of Romulus, as much as under their old one of the Argei.

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[i] Livy, i. 7: cf. Virgil, Æneid. viii. 185: and Servius in loco: Solinus, Polyh. i. 7–10: Auctor De Origine, lib. i. page 9. l. 18: Arnobius, ii. 91: Lactantius, i. 21.

If these conclusions are justly deducible from our premises, they may assist us to the probable discovery of the first institution of the more ancient ceremony itself, in memory of Argus. The stated date of this ceremony in the calendar of Numa was the Idus of his Maius; and that date in the first instance of all, Cycle i. 3, fell on June 2. B. C. 710. Let us be permitted to assume that it was attached to this date in his calendar in the first instance because June 2 was the traditionary date of the older ceremony itself. The first question will be On what day in the equable calendar did June 2 B.C. 710 fall? The scheme proposed above[k] shews that it fell on Chœac 16; the Cyclical Chœac or the Nabonassarian Chœac alike. If this Julian date June 2 then was fixed or given in terms perpetually, the Nabonassarian date corresponding to it must have been fixed proportionally also; that is in going back from Chœac 16 June 2 B.C. 710 in periods of 120 mean Julian years perpetually, it would always be either the 16th of the equable month, or the 21st; the 16th so long as the recession did not include the Epagomenæ of the equable year, the 21st after it had done so.

Now B. C. 710 corresponded to Æra Cyclica 3 297. If then we go back 480 equable years from the Nabonassarian Chœac 16 Æra Cyclica 3 297, corresponding at that time to June 2 B. C. 710, we come to the Nabonassarian Mesore 21 Æra Cyclica 2 816; which is found to be falling at that time, as our General Tables shew, on June 2 B. C. 1190: a coincidence which began to be the case Æra Cyc. 2 813 B. C. 1193, and was still continuing Æra Cyc. 2 816 B. C. 1190. The former of these dates was only 16 years, the latter only 13, before the earliest admissible date of the arrival of Æneas in Italy, after the capture of Troy, B.C. 1177; at which time the coming of Evander himself also was still a recent event: and consequently any thing which had happened subsequently even to that; like this event of the death of Argus. We cannot indeed insist on these coincidences as demonstrative of the true date of the institution of the ceremony connected with his death; because we cannot take it for granted that the ceremony *was* attached to a stated Julian date, like June 2, from the first: and not merely to some particular day in the equable calendar, the same indeed with itself perpetually, but not necessarily, either at first or ever after, with June 2. It is however a singular coincidence, and one which could scarcely have been produced by chance, that the equable date of the ceremony in Numa's time, supposed to have been attached to the same Julian date from the first as at that time, should take us back at once to the time of Evander; that is, to the very time when the event itself must have happened, if it happened in his time, and if he himself was an historical character.

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[k] Page 308.

SECTION IV.—*On the Quirinalia of the Calendar of Numa. On the Birthday of Romulus. On the Conception of Romulus, and on the Eclipse of the sun at the Conception.*

The testimony of antiquity to the age of Romulus and Remus at the time of the foundation of the city of Rome is very generally to the same effect. It seems to have been commonly believed that they were at that time 18 or 19 years of age. It may suffice to illustrate the fact of this persuasion by the testimony of Ovid in particular.

> Martia ter senos proles adoleverat annos,
> Et suberat flavæ jam nova barba comæ.
> Omnibus agricolis armentorumque magistris
> Iliadæ fratres jura petita dabant[l].

And this being intended of their age just before the Foundation, that is the Roman Aprilis, and their birth itself being dated by Ovid in the Roman Februarius; it implies that they were now strictly in their 18th or their 19th year[m].

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[l] Fasti, iii. 59–78.

[m] Cf. Dionysius Hal. i. 79: ii. 56: Plutarch, Romulus, xii: Dio, iii. § 5: Zonaras, vii. 3. 316. B. C: 4. 320. C: Eutropius, i. 1: Eusebius, Chron. Arm. Lat. Pars i. 283. Cf. Thesaurus Temporum, Ol. i. 4. vii. 1: Lydus, De Magistratibus, i. 3.

From the circumstances of their birth, as handed down traditionally, it must be collected that it was known or believed to have happened towards the end of the natural year, dated from the vernal equinox; and apparently in the Roman January or the Roman February of after times. Thus Ovid, when he has got to the day of the Lupercalia, the 15th of February Roman—

Forsitan et quæras cur sit locus iste Lupercal,
  Quæve diem tali nomine caussa notet.
Ilia Vestalis cœlestia semina partu
  Ediderat patruo regna tenente suo.
Is jubet auferri pueros et in amne necari:
  Quid facis? ex illis Romulus alter erit.
Jussa recusantes peragunt lacrymosa ministri,
  Flent tamen et gemitus in loca jussa ferunt.
Albula quem Tibrin mersus Tiberinus in undis
  Reddidit hibernis forte tumebat aquis[n].

And again, where he is explaining the name of Martius—

Interea crescente Remo crescente Quirino
  Cœlesti tumidus pondere venter erat.
Quo minus emeritis exiret cursibus annus
  Restabant nitido jam duo signa deo.
Sylvia fit mater[o] . . . . .

These two signs supposed to be still wanting to complete the natural year were Aquarius and Pisces; the former of which the sun entered, according to Ovid[p], January 17 Roman, and the latter[q] February 15 Roman, the stated date of the Lupercalia itself: the entrance of the sun into Aries, i. e. the beginning of the natural year, being dated March 22 Roman[r]; though the analogy of the other two instances would have prescribed March 17 Roman rather than March 22. Here then it is necessarily implied that the birth of Romulus and Remus happened in one or other of these signs, Aquarius or Pisces, between January 17 Roman and March 22 Roman; and possibly in the opinion of Ovid critically between the two: i. e. on February 15 Roman, the ingress of the sun into Pisces and the date of the Lupercalia[s].

Livy observes of the state of the river at the time of their exposure, Forte quadam divinitus super ripas Tiberis effusus lenibus stagnis[t]—: and Varro in explanation of the name of Germalum, which occurred in his description of one of the quarters of the Argei[u] (Germalensis quincticepsos apud ædem Romuli): Germalum a germaneis Romulo et Remo, quod ad ficum Ruminalem et hi inventi: quo aqua hiberna Tiberis eos detulerat in alveolo expositos. And that the Tiber was liable to overflow in the month of February has been shewn, in reference to the stated date of the Equiria at the end of that month; and might be proved if necessary by many actual instances of the fact.

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[n] ii. 381–422. [o] iii. 41–52. [p] i. 651. [q] ii. 457. [r] iii. 851.

[s] Cf. Dionysius, i. 32. 80. Plutarch, Romulus, xxi.

That the early spring was the time of the birth, real or supposed, appears beyond a question from the circumstantial account of it given by Dionysius[w], after Quinctus Fabius Pictor; whose statements too in this instance, as he tells us, had been adopted and repeated by the other early Roman historians, Lucius Cincius, Porcius Cato, and Calpurnius Piso[x]. He dates their recognition at least according to Ælius Tubero at the Lycea or Lupercalia; when they were 18 years of age[y].

Now it appears from Dionysius[z] that the deification of Romulus under the name of Quirinus (the Sabine name for Mars[a]) was the act of Numa Pompilius. The sacellum or chapel of Romulus under this name of Quirinus was on or close to the Quirinal hill[b]; and that hill according to Dionysius[c] was taken in by Numa; though Livy[d] supposes it to have been added by Servius Tullius: and the first thing which Numa did after he became king, according to Plutarch[e], was to add the Flamen Quirinalis to the Flamen Dialis and the Flamen Martialis before existing. The proper service then in honour of the god Quirinus in the Roman calendar from the earliest to the latest times having been the Quirinalia; it is morally certain that the Quirinalia must have been instituted by Numa.

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[t] i. 4. Cf. Plutarch, Romulus, iv. Festus, xvi. 456. 7. Romæ.

[u] Supra 319. Cf. Plut. Romulus, iii.

[w] i. 79. 83. Cf. Plut., Romulus, iii.

[x] Cf. Auctor De Origine Urbis Romæ, i. 21, 22. Virgil, Æn. viii. 630.

Fecerat et fetam viridi Mavortis in antro
Procubuisse lupam.

This epithet of *viridi* too is an argument of the spring. That tradition did always perpetuate the month of February, or the next to it, that of March, as the month of the birth, appears from the astrological calculations of Tarutius; which dated the conception of Romulus and Remus on the 23d of Chœac (June 24) in one year, and the birth on the 21st of Thoth (March 24) in the next. Even in the Constantian calendar of A. D. 355 the Natalis Dei Quirini is attached to iv Non. Apriles, April 2.

[y] Cf. i. 80: 79. Servius ad Æn. viii. 343.

[z] ii. 63.

[a] Dionys. ii. 48. Quirinus was derived from Quiris or Curis the Sabine for spear: see Ovid, Fasti, ii. 477: cf. Festus, iii. 109. 6. Curis: xv. 415. 15. Quirinus: 416. 1. Quirites: Macrobius, Saturnalia, i. 9. 239.

[b] Varro, De Lingua Lat. iv. 16. Festus, xv. 415. 5–14. Quirinalia.

[c] ii. 62.

[d] i. 44.

The date of the Quirinalia in Ovid's time[f] was the xiii Kal. Martias, February 17 Roman; and that is its date also in the fragments of the Julian calendar for the month of February, still remaining[g]. If this was its actual date in the correction of Cæsar, we may take it for granted that it must have been its nominal date in every state of the calendar, regular or irregular, previously. And indeed dates are repeatedly found, in the Fasti Triumphales, of Triumphs upon the Quirinalia; which the context determines to the month before March at least.

It is very necessary however to observe that as Februarius was the last month in the calendar of Numa, and immediately preceded his Januarius, the style of the Quirinalia in *his* calendar must have been that of the xiii Kal. *Januarias* not that of the xiii Kal. *Martias;* and in the common years of his cycle this term, the xiii Kal. Januarias, would always denote the 17th of his Februarius: in the intercalary years, when the Merkedonius had 27 days, it would denote the 16th of the Merkedonius, when it had 28, it would denote the 17th. But it would always be the calendar date of the Quirinalia, under its proper style of the xiii Kalendas Januarias.

These observations having been premised, we may now proceed to inquire From what this day, denominated the Quirinalia and dedicated to Romulus, must have been taken? The first and most obvious conjecture would seem to be that, as it was the feast day of Romulus under the name of the god Quirinus, it must have been intended to commemorate the day of his disappearance, as that of his deification. And this appeared so natural a conjecture to Ovid, as we have seen[h], that he did not hesitate to recognize the date of the

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[e] Numa, vii. Cf. Livy, i. 20: Festus, xi. 232. 2. Maximæ.

[f] Fasti, ii. 475.

[g] The Maffæan and Farnesian, apud Foggini. Cf. Festus, xv. 415. 1. Quirinalia.

[h] Supra, 120.

Quirinalia as the date of Romulus' translation to heaven; though he could not have been ignorant that by so doing he was contradicting one of the oldest and most constant and best authenticated traditions among the Romans; that of the disappearance of Romulus *de facto* on the Nones of Quinctilis not on the seventeenth of Februarius. And though the Nones of Quinctilis (the 7th of that month) in such a calendar as the Nundinal, and under certain circumstances, might have been found coinciding with the 17th of Februarius in such a calendar as Numa's: it is certain that nothing of that kind could have been the case any time between B. C. 715 and B. C. 712; and in particular, B. C. 713, 712, or 711, in one of which years the first Quirinalia must have been instituted. It is clear then that, in fixing on this day in his own calendar for the holiday of the god Quirinus, Numa could have had no regard to the nominal date of his translation, the Nundinal Quinctilis 7. It is equally clear that he could have had no more regard to its true date; whether the equable Chœac 8, or the Julian May 26. The 17th of his February could never under any circumstances coincide with the Julian May 26. It might in the course of time coincide with the equable Chœac 8; but not in the lifetime of Numa, nor until long after his death.

If however the day of the disappearance of Romulus, and therefore of his deification, (reckoned from the time when he ceased to be seen among men at least,) was notoriously either the Nundinal Quinctilis 7, or the Equable Chœac 8; and yet the day fixed upon as the sign and seal of his divinity, the date of his own Quirinalia, the day which recognized and attested his divinity, both at the time and to all succeeding generations, in the most public and solemn manner, was notoriously a different day; how shall we account for this distinction on any principle which shall shew it to have been nevertheless a reasonable and consistent one? We can imagine no explanation of the fact but *this*; That the day actually fixed upon by Numa for the Quirinalia, though not the day of the disappearance or translation of Romulus, was the day of his BIRTH.

Now this will appear on consideration to be only a just and a natural distinction. For if Numa concurred in the common belief (or in what tradition has always represented as the common belief) that Romulus was the son of Mars, it must have been evident to him that his right to be proposed and recognized as divine must have held good from the moment of his birth, and not merely from that of his disappearance. He was as truly a god, as truly a Mars *alter*, while still conversant among men, as after his disappearance from the midst of them. And if he had any secret misgivings respecting the true explanation of this mysterious disappearance, (misgivings which could scarcely fail to occur to a man of his good sense, though he might not think it expedient to give them publicity) it must have appeared to him the height of impropriety to date the beginning of Romulus' divinity from the day of his death, brought about as it had been by treason and violence *. But there was no impropriety in treating him as divine from the moment of his birth, if he was to be treated as divine at all: or rather if the end of such a life as his was a token of his divinity its beginning must have been so too. To our judgment therefore no conclusion appears more probable than *this;* That the Quirinalia assigned to Romulus under the name of Quirinus, as both the sign and the seal of his divinity, were taken from the day of his birth. And that being the case; the date of the Quirinalia in the calendar of Numa may possibly help us to discover the date of the birth of Romulus.

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* There was a tradition among the Romans themselves of after-times that Romulus was buried in the Forum at Rome. Scholia ad Hor. Epod. xvi. 13. Hoc sic dixit quasi Romulus sepultus est .... nam et Varro pro rostris sepulcrum Romuli dixit, ubi etiam in hujus rei memoriam duos leones erectos fuisse constat. unde factum est ut pro rostris mortui laudarentur. Festus, xii. 278. 14: Niger lapis in Comitio locum funestum significat. ut alii, Romuli morti destinatum. sed non usu obvenit ut ibi sepeliretur, sed Faustulum nutritium ejus ibi sepultum fuisse, et Quintilium avum, Ti .... qui partes Romuli sequebatur; cujus familia dicta Quintilia, juxta appellationem ejus. On this principle, this *black stone* in the Comitium pointed out the spot which had been intended for the sepulchre of Romulus; had he died and been buried in the regular manner. According to Varro the two lions in front of the Rostra designated the place of his actual burial. May we conjecture that this latter was the site of a *cenotaph*, actually erected to him there; and by Numa? This supposition would render the above accounts consistent with each other.

Now as Numa Pompilius came to the throne not later than B. C. 713 *exeunte*, and as the deification of Romulus was one of the first acts of his reign, we are justified in assuming that the first Quirinalia would be celebrated B. C. 712; and if so, according to the rule and analogy of every later occasion of the same kind. Numa's correction of the calendar indeed did not actually come into force before the Kalends of January, Feb. 17 Julian, B. C. 712, *after* the stated date of the Quirinalia. But in every regular calendar, the first year of its very first cycle may be supposed to take up the last of one which has just come to an end. Every such calendar admits of being applied backwards, as well as forwards, to any extent. We are at liberty therefore to assume that the actual date of the Quirinalia, B. C. 712, the first of its kind, would be the stated and regular date of that ceremony in the last year of the cycle of Numa. This last year was intercalary; and the Merkedonius was one of 27 days. The xiii Kal. Januarias therefore, the stated calendar date of the Quirinalia in every year of the cycle whether common or intercalary alike, in the last year fell on Merkedonius 16; and Merkedonius 16 on February 5. This then, if we are right in our premises and in the conclusions which we have drawn from them, must have been the date of the birthday of Romulus; the date of the first Quirinalia according to the appointment of Numa, the xiii Kal. Januarias in the last year of his cycle, the Julian February 5. We shall proceed to confirm this inference by some distinct arguments.

i. It is altogether in unison with the fact which has been established by the testimony of Roman antiquity; viz. that the birth of Romulus and Remus did happen at *this* season of the year, i. e. in the early spring, when the Tiber was liable to overflow its banks, and actually was doing so at the time: and even in the Julian February of later times itself. All this would manifestly be the case with such a date as February 5. It is consistent also with the traditional date of their recognition by Numitor, as much the same with that of their birth; sometime in the month of February also, about the season of the Lupercalia of after times. It is consistent with the traditionary age of both at the time of the Foundation, whether 17, or 18, or 19*. For, if they were really born Feb. 5 B. C. 769, they were really 19 complete Feb. 5 B. C. 750; and Rome was actually founded in their twentieth year.

ii. Again, if Romulus was born Feb. 5 B. C. 769, he must have been 54 Feb. 5 B. C. 715; and therefore it might be said that he was 54 years old at his death, as Plutarch says he was[i]. And, if he had lived so long, he must have been 59 Feb. 5 B. C. 710; and therefore must have passed for a person of 60 years of age on the Ides of May June 2 that year. We have seen that the ceremony of the Scirpea simulacra was instituted by Numa in that year; and that these images were intended as so many offerings to the Manes of Romulus: and yet were known by the name of the Sexagenarii from the first. We now perceive that there was a good reason why they should be so called. They were intended for the ὁμήλικες or *æquales* of Romulus; persons of the same age at that time of which he would have been had he been then alive. These two things reflect the greatest possible light on each other. The age of Romulus, referred to this year of B. C. 710, on these Sexagenarii; these Sexagenarii of B. C. 710, as the fellows in age of Romulus, on his birth, B. C. 769.

iii. This date of the birth of Romulus February 5 B. C. 769 enables us also to put to the test the truth of the tradition relative to the eclipse of the sun at his conception. Testimony, as we have seen[k], the testimony of Roman antiquity, is as unanimous to the fact of this eclipse at the conception, as to that of the eclipse at the death, of Romulus. It must have been taken for granted by Varro and Tarutius, preliminary to their own calculation of the date of his birth; for they fixed his conception, as we hope to see more clearly hereafter, to the day of a solar eclipse: which could have been done only out of respect to this tradition, and from an implicit belief of its truth.

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* It does not always appear whether these statements relating to the age of Romulus at the Foundation are meant of current years or of complete. Tarutius' calculation supposed him only 17 complete at the Foundation; that is, *in* his 18th year. Piso's date of the Foundation, B. C. 758, compared with his date for his birth, B. C. 776 (supra, p. 14), supposed him 18 complete. On this point allowance may be made for a year in excess or in defect without any prejudice to the truth. If Romulus was born Feb. 5 B. C. 769, he was 19 years 78 days old April 24 B. C. 750; 18 years 78 days old on the same day, B. C. 751; 17 years 78 days old, the same day, B. C. 752, and 16 years 79 days old, the same day, B. C. 753. The true date of his birth, and the tradition relating to his age at the Foundation, are absolutely inconsistent only on the supposition that he was 30 at the time of this latter event. An opinion, which as we have seen (supra, p. 20 note: 37 note,) does appear to have been entertained by Tacitus, and possibly by Virgil.

[i] Romulus, xxix. Cf. Dionysius, ii. 56.

Now if Romulus was actually born Feb. 5 B. C. 769, then his conception must have taken place B. C. 770; at *that* distance of time before Feb. 5 B. C. 769, whatsoever it might be, which the laws of nature prescribe, in the case of the human subject, as the ordinary interval between the Conception and the Birth. And though there is no absolute measure of this interval, universally applicable, there is an approximate one, founded on experience and observation, which can never be far from the truth. For example, it may be assumed that it could seldom be less than 273 or 274 days, in any case[l]; and in a particular case, like that of twins, it might be 276.

Let it then be supposed that Romulus and Remus were born Feb. 5 B. C. 769. Reckon back 276 days from Feb. 5 B. C. 769; and you come to May 5 B. C. 770. If this was the actual day of their conception, and the tradition of the fact of the solar eclipse at that identical time also had any foundation in truth, it must have been likewise the day of a solar eclipse, and of a remarkable eclipse too, if it was ever after so well remembered. Now this was actually the case. The Tables of Pingrè shew an eclipse of the sun, B. C. 770, on May 5, at 11.45 A. M. for the meridian of Paris; which must have been still nearer to noon for that of Rome. We have not thought it proper however to take the date of this ecliptic conjunction from Pingrè. We have calculated it for ourselves, and we find,

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[k] Supra 118. Cf. Dionysius, ii. 56: i. 77.

[l] See our Prolegomena, 119. cap. ii. Cf. also our Fasti Catholici, ii. 505. Diss. xiii. ch. i. sect. ix: Ibid. iv. 163, 164. Diss. xvi. ch. i. sect. iv.

		h.	m.	s.	
The mean new moon,	May 4.	23	53	50	mean time Greenwich.
	May 5.	0	43	39	— — Rome.
		h.	m.	s.	
The true new moon,	May 5.	10	0	39	mean time Greenwich.
	May 5.	10	50	28	— — Rome.

The mean distance of the sun from the Node at the time of this conjunction was 358° 36′ 11″; at that of the true was 359° 45′ 42″; only 14′ 18″ short of the article of the Node itself: so that nothing can be more certain than that there must have been an eclipse of the sun of extraordinary magnitude on this day. Nor do we know of any phenomenon of this kind in the history of the past which it would be more desirable on every account that competent persons should calculate with all the precision of which modern astronomy is capable.

It cannot fail to occur to the reader that this being the eclipse at the conception, and that of May 26 the eclipse at the death, of Romulus, they both happened at the same season of the year; and both in the same Julian month, one only 21 days before the other, and one about the same time in the forenoon as the other in the afternoon of its proper day. These coincidences would have the effect of causing them to go down to posterity in conjunction, and to be constantly remembered in conjunction; one as characteristic of the beginning, the other as equally so of the termination, of the mortal existence of the same person, the founder of the city of Rome.

iv. We have already observed [m] that, though the order of Vestals was not older at Rome than Numa, it was older at Alba. Every one knows that Ilia or Rhea Sylvia the mother of Romulus and Remus, an Alban princess, is uniformly represented as one of the virgins of Vesta. The most remarkable circumstance of distinction between this more ancient order of Vestals at Alba and that at Rome was *this*, that, according to Dionysius [n], the term of service of the former was five years, but that of the Roman Vestals was 30. We have already explained [o] that this peculiar term is the proper measure of the restitution of the Nundinal year in terms of the Equable; and that, whensoever and wheresoever it is alluded to, it is an equal argument of the existence of each of those kinds of year alike: but that where it is alluded to absolutely, (as it is here[n] by Dionysius,) it is first and properly to be understood of the Equable year, though it may also imply the Nundinal. The term of service then of the order of Vestals at Alba was five Equable years, equivalent to six Nundinal.

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[m] Supra 173 note.

[n] i. 76, 77: ii. 67.

[o] Supra 135. Diss. ii. ch. iii. sect. ii.

Now there was actually a Nundinal Type, as we hope to demonstrate hereafter, common to the Prisci Latini, and in use at Alba also; in which the lxviith equable cycle of five years from the epoch perpetually actually bore date on the first of Thoth at midnight Æra cyc. 3237 March 3 at midnight B. C. 770. Dionysius indeed[n] says that the conception of Romulus and Remus took place in the fourth year of the service of Ilia. But there is very little difference between the fourth year of one term of five years and the first of the next; and in a matter of so great an antiquity as this a circumstantial mistatement of that kind would be very excuseable. The months of the Nundinal calendar of Alba being assumed to have followed the natural rule of the Nundinal calendar in general, in being each 32 days long; the scheme of that calendar B. C. 770 and 769 stood as follows.

NUNDINAL TYPE iii.

Cycle lxvii. 1.

Month.	Midnight.	Month.	Midnight.
i Dec.	27 B. C. 771.	vi June	5 B. C. 770.
ii Jan.	28 .. 770.	vii July	7 .. ..
iii March	1	viii Aug.	8 .. ..
iv April	2	ix Sep.	9 .. ..
v May	4	x Oct.	11 .. ..

2nd of vth month May 5 B. C. 770.

Cycle lxviii. 1.

Month.	Midnight.
i Oct.	27 B. C. 770.
ii Nov.	28 .. ..
iii Dec.	30 .. ..
iv Jan.	31 B. C. 769.

6th of ivth month February 5.

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[n] Dionysius, i. 76, 77: ii. 67.

In this calendar consequently the date of the conception May 5 B. C. 770 must have been the second of the fifth month; and that of the birth February 5 B. C. 769 must have been the sixth of the fourth month. The Primitive Thoth, at midnight, Æra cyclica 3237, as we have observed was falling March 3 at midnight, B. C. 770; and therefore the fourth of Athyr at midnight on May 5 at midnight. The Vestal term, restricted as it was to one cycle of these five equable years at a time, must have begun in this instance on Thoth 1 at midnight, March 3 at midnight; and if the number of Vestals at Alba was four as it appears to have been originally at Rome, perhaps each of them might come into service, and have the charge of the ἄλσος of Vesta, every fourth day: in which case Ilia's turn might have come on the 64th day from the beginning of the year, Athyr 4, which coincided with May 5; and it would do so if she was the youngest of the body, and the *fourth* in order. And that too might explain the mistake of Dionysius above alluded to; who might thus have confounded the fourth turn in the order of the daily service with the fourth year in the order of the cycle. It is very observable at least that though May 4, the day before this visit of hers to the ἄλσος of Vesta, must have been nundinal, May 5 could not have been so.

Again the Julian date of the birth of Romulus being Feb. 5, in the year of the Foundation it would be found coinciding with the second day of his own nundinal correction; the first of which as we have seen was February 4—that year. In fixing his birthday in his own calendar, it is far from improbable that he would expressly regard this coincidence; and would assume it accordingly, as the 2nd of his own Martius: and such an assumption as that would be competent to explain the reason why he gave the name of Martius to that month itself; if at least it was so called from the first after his reputed father Mars. He might give the first day of his Martius to his father and the second to himself as his son. This coincidence at least was competent to make him prefer the epoch of the Etruscan Nundinal Type for the time being to that of the Alban; because the former was falling on Feb. 4, the day before his birthday, Feb. 5—the latter was not. In this Alban type his nominal birthday the 6th of the ivth month B. C. 750 was falling on March 29, and March 29 on the 23rd of his own Aprilis; as the following scheme will shew.

NUNDINAL TYPE III. Cycle lxxi. 1.		NUNDINAL CALENDAR OF ROMULUS. Cycle i. 1.	
Month.	Midnight.	Month.	Midnight.
i Dec.	18 B. C. 751.		
ii Jan.	19 .. 750.		
iii Feb.	20	i Feb.	4 B. C. 750.
iv March	24	ii March	7 .. ..
6th of ivth month March 29.		23rd of iind month or Aprilis March 29.	

The equable date of his birth B. C. 769 was Mesore 10—which coincided that year with Feb. 5: and Mesore 10, B. C. 750, coincided with Jan. 31. We cannot undertake to say what day was actually reckoned as his birthday in his own calendar. But the analogy of the Quirinalia, fixed by Numa B. C. 712 to the true day of his birth, Feb. 5, and the name of his own month of Martius, the first in his calendar, do strongly imply that it was that day in his own correction, B. C. 750, which coincided with Feb. 5; that is, the 2nd of Martius.

CHAPTER V.

On the Janus of Numa; and on the Pales of ancient Italy.

SECTION I.—*Obscurity and difficulty of each of these questions.*

There are still two questions connected with the subjects which we have hitherto been discussing, on neither of which has any thing yet been said; and we do not think it right to pass them over without notice, nor without endeavouring, as far as it may be in our power, to answer them. One of these concerns the Janus of Numa; the other the Pales of Roman, or of older Italic, antiquity: the former a conception coæval with Numa at least, the latter still more ancient, and older even than Romulus.

It cannot be denied that these questions have a clear and distinct relation to the history of the Roman calendar; still less that each is obscure and difficult. The etymon and derivation of both these names, the kind of conception denoted by the Janus of Numa or by the Pales of earlier antiquity, the origin and source of each of those ideas, the nature and attributes of each of those characters; these are inquiries which may be extremely curious and interesting in themselves, but as it might be supposed were very unlikely to lead to any clear or satisfactory results: especially the second of the two; about which we have been left much more in the dark than about the first. The ancients had much to say respecting the Janus of Numa, though they did not agree in their opinions concerning him; but they have left little on record with regard to the older conception and impersonation of Pales. Whether we shall succeed in enucleating a consistent idea of the former character, from the many discordant representations of it which we are obliged to compare together, or in divining the nature of the latter from the few and imperfect notices which remain of it; we must leave to the judgment of others. Each of these questions is too closely connected with our proper subject to be altogether omitted; and if we are to enter upon their consideration at all, this is the proper place for doing so, before we take our leave of the calendar of Numa for the present.

SECTION II.—*Testimonies of antiquity to the Janus of Numa.*

i. Jane biceps anni tacite labentis origo!
Solus de superis qui tua terga vides[p].

* * * *

Quem tamen esse deûm te dicam Jane biformis,
Nam tibi par nullum Græcia numen habet.
Ede simul caussam cur de cœlestibus unus
Sitque quod a tergo sitque quod ante vides[q].

* * * *

Tum sacer ancipiti mirandus imagine Janus
Bina repens oculis obtulit ora meis[r].

* * * *

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[p] Ovid, Fasti, i. 65.

[q] Ibid. 89.

[r] Ibid. 95.

Ille tenens dextra baculum clavemque sinistra
  Edidit hos nobis ore priore sonos[s].

* * * *

Me Chaos antiqui (nam res sum prisca) vocabant.
  Aspice quam longi temporis acta canam.
Lucidus hic aër, et quæ tria corpora restant,
  Ignis aquæ tellus, unus acervus erant.
Ut semel hæc rerum secessit lite suarum
  Inque novas abiit massa soluta domos;
Flamma petît altum propior locus aëra cepit
  Sederunt medio terra fretumque solo.
Tunc ego qui fueram globus et sine imagine moles
  In faciem redii dignaque membra deo.
Nunc quoque confusæ quondam nota parva figuræ
  Ante quod est in me postque videtur idem.
Accipe quæsitæ quæ caussa sit altera formæ,
  Hanc simul ut noris officiumque meum.
Quicquid ubique vides cœlum mare nubila terras
  Omnia sunt nostra clausa patentque manu.
Me penes est unum vasti custodia mundi,
  Et jus vertendi cardinis omne meum est.
Cum libuit Pacem placidis emittere tectis
  Libera perpetuas ambulat illa vias.
Sanguine letifero totus miscebitur orbis
  Ni teneant rigidæ condita bella seræ.
Præsideo foribus cœli cum mitibus Horis,
  It redit officio Juppiter ipse meo.
Inde vocor Janus: cui cum Cereale[t] sacerdos
  Imponit libum mixtaque farra sali;
Nomina ridebis: modo namque Patulcius idem
  Et modo sacrifico Clusius ore vocor.
Scilicet alterno voluit rudis illa vetustas
  Nomine diversas significare vices.
Vis mea narrata est: caussam nunc disce figuræ,
  Jam tamen hanc aliqua tu quoque parte vides.
Omnis habet geminas hinc atque hinc janua frontes,
  E quibus hæc populum spectat ut illa larem.
Utque sedens vester primi prope limina tecti
  Janitor egressus introïtusque videt;
Sic ego prospicio cœlestis janitor aulæ
  Eöas partes Hesperiasque simul.
Ora vides Hecates in tres vergentia partes,
  Servet ut in ternas compita secta vias.
Et mihi ne flexu cervicis tempora perdam
  Cernere non moto corpore bina licet[u].

* * * *

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[s] Ovid, Fasti, i. 99.
[t] Cf. Festus in Janual, ix. 177. 5.
[u] Fasti, i. 144.

Finierat monitus. placidis ita rursus ut ante
  Clavigerum verbis adloquor ipse deum.
Multa quidem didici: sed cur navalis in ære
  Altera signata est altera forma biceps?
Noscere me duplici posses in imagine dixit,
  Ni vetus ipsa dies extenuaret opus.
Caussa ratis superest. Tuscum rate venit in amnem
  Ante pererrato falcifer orbe deus.
Hac ego Saturnum memini tellure receptum[w]:
  Cœlitibus regnis ab Jove pulsus erat.
Inde diu genti mansit Saturnia nomen,
  Dicta quoque est Latium terra latente deo.
At bona posteritas puppim signavit in ære,
  Hospitis adventum testificata dei.
Inde solum colui cujus placidissima lævum
  Radit arenosi Tibridis unda latus.
Hic ubi nunc Roma est incædua sylva virebat,
  Tantaque res paucis pascua bubus erat.
Arx mea collis erat quem cultrix nomine nostro
  Nuncupat hæc ætas Janiculumque vocat.
Tunc ego regnabam patiens cum terra deorum
  Esset et humanis numina mixta locis[x].

ii. Saturnusque senex Janique bifrontis imago[y].

Primus ab ætherio venit Saturnus Olympo,
Arma Jovis fugiens et regnis exsul ademtis.
Is genus indocile ac dispersum montibus altis
Composuit, legesque dedit, Latiumque vocari
Maluit his quoniam latuisset tutus in oris[z].

Hoc dicit secundum poeticum morem. nam Saturnus rex fuit Cretæ, quem Jupiter filius bello pepulit. hic fugiens ab Jano rege, qui urbem habuit ubi nunc Janiculum est, susceptus est; qui regnabat in Italia: quem cum docuisset usum vinearum et falcis et humaniorem victum in partem est admissus imperii, et sibi oppidum fecit sub clivo Capitolino ubi nunc ejus ædes videtur; qui postea suum repetivit imperium. ex hoc et Saturnalia; ut essent memoralia vitæ quam Saturnus docuerat, qua die simul et promiscuo victu utuntur servi et liberi. ideo autem in æde ipsius Saturni ærarium quod ibi potissimum pecunia servaretur, eo quod illi maxime credatur[a].

[w] Cf. i. 193.
[x] Ibid. 227.
[y] Æneid, vii. 180.
[z] Ibid. viii. 319.
[a] Servius, in locum.

Hæc duo præterea disjectis oppida muris
Relliquias veterumque vides monumenta virorum.
Hanc Janus pater, hanc Saturnus condidit arcem:
Janiculum huic illi fuerat Saturnia nomen[b].

Janus in Janiculo habitavit. qui quod una navi exsul venit in pecunia ejus ex una parte Jani caput ex altera navis signata est[b].

iii. Italiæ cultores primi Aborigines fuere; quorum rex Saturnus tantæ justitiæ fuisse traditur ut neque servierit sub illo quisquam neque quidquam privatæ rei habuerit: sed omnia communia et indivisa omnibus fuerint, velut unum cunctis patrimonium esset. ob cujus exempli memoriam cautum est ut Saturnalibus exæquato omnium jure passim in conviviis servi cum dominis recumbant. itaque Italia regis nomine Saturnia appellata est, et mons in quo habitabat Saturnius; in quo nunc veluti a Jove pulso sedibus suis Saturno Capitolium est[c]—Hunc errantem atque inopem Janus excepit. cujus rei argumenta sunt numi veteres, in quibus est cum duplici fronte Janus et in altera parte navis[d]—Ὁ γὰρ Ἰανὸς ἐν τοῖς παλαιοῖς πάνυ εἴτε δαίμων εἴτε βασιλεὺς γενόμενος πολιτικὸς καὶ κοινωνικὸς ἐκ τοῦ θηριώδους καὶ ἀγρίου λέγεται μεταβαλεῖν τὴν δίαιταν. καὶ διὰ τοῦτο πλάττουσιν αὐτὸν ἀμφιπρόσωπον, ὡς ἑτέραν ἐξ ἑτέρας τῷ βίῳ περιποιήσαντα τὴν μορφὴν καὶ διάθεσιν[e]—Διὰ ταῦτά τοι καὶ μέχρι νῦν Ἰταλιῶται τὰ μὲν Κρόνια προευρτάζουσι θεῷ τῷ λαθόντι, τὴν δὲ τοῦ ἔτους ἀρχὴν ἱερομηνίαν ἄγουσι τῷ τῆς Ἰταλίας ἔθει. διπρόσωπον δὲ αὐτοῦ ἵδρυται τὸ ἄγαλμα ἐπειδὴ εἰς αὐτὸν ὁ ἐνιαυτὸς ἄρχεταί τε καὶ παύεται[f]—Δίων ὁ Ῥωμαῖος ἀρχαῖόν τινα ἥρωα Ἰανὸν λέγει, διὰ τὴν τοῦ Κρόνου ξένισιν λαβόντα τὴν γνῶσιν τῶν μελλόντων καὶ τῶν προυπαρχόντων, καὶ διὰ τοῦτο διπρόσωπον ὑπὸ τῶν Ῥωμαίων πλάττεσθαι· ἐξ οὗ τόν τε μῆνα κληθῆναι Ἰανουάριον, καὶ τὴν τοῦ ἔτους ἀρχὴν ἀπὸ τοῦ αὐτοῦ μηνὸς γίνεσθαι[g].

iv. Cumque in omnibus rebus vim haberent maximam prima et extrema principem in sacrificando Janum esse voluerunt[h]; quod ab *eundo* nomen est ductum: ex quo transitiones perviæ Jani; foresque in liminibus profanarum ædium *ianuæ* nominantur[i]—Chaos appellat Hesiodus confusam quandam ab initio unitatem, hiantem patentemque in profundum. ex eo et *χαίνειν* Græci et nos *hiare* dicimus. unde Janus detracta aspiratione nominatur, ideo quod fuerit omnium primus, cui primum supplicabant veluti parenti, et a quo rerum omnium factum putabant initium[k]—

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[b] Æneid, viii. 355.
[c] Justin, xliii. i. § 3.
[d] Lactantius, i. 13. cf. i. 11.
[e] Plutarch, Numa, xix.
[f] Herodian, i. 49.
[g] Dio Cassius, Fragmenta, ii.
[h] Cf. Ovid, Fasti, i. 171: Auctor, De Origine, i. 7. l. 6.
[i] Cicero, De Natura Deorum, ii. 27.

Sunt geminæ belli portæ[l].

Janum sane apud aliquos bifrontem apud aliquos quadrifrontem esse non mirum est: nam alii eum diei dominum volunt in quo ortus est et occasus. Hor. ii. Sat. vi. 20.

Matutine pater seu Jane libentius audis.

alii anni totius, quem in quatuor tempora constat esse divisum. anni autem esse deum illa res probat quod ab illo prima pars anni nominatur: nam ab Jano Januarius nuncupatus est[l]—

Janumque bifrontem[m].

Rite hunc quoque invocat, quia ipse faciendis fœderibus præest. namque postquam Romulus et Titus Tatius in fœdera convenerunt Jano simulacrum duplicis frontis effectum est quasi ad imaginem duorum populorum. legimus tamen Janum etiam quadrifrontem fuisse; unde Martialis, viii. 2.

Et lingua pariter locutus omni:

Nam *omnis* de duobus non dicitur[m]—

Nec custos absistit limine Janus[n].

Quidam Janum *Eanum* dicunt ab *eundo*, eumque esse Martem: et quod apud Romanos plurimum potest ideo primum in veneratione nominari. alii Janum aërem credunt; et quia vocis genitor habeatur idcirco mandari ei preces nostras ad deos perferendas. alii Janum mundum accipiunt; cujus caulæ ideo in pace clausæ sunt quod mundus undique clausus est; belli tempore aperiuntur ad auxilium petendum ut pateant. nam quasi mundo ei duas facies dederunt orientis et occidentis, quod jam supra dictum est: alii quatuor, secundum quatuor partes mundi. alii Clusium dicunt, alii Patulcium quod patendarum portarum habeat potestatem. idem Junonius: inde pulchre Juno portas aperire inducitur. idem Quirinus: unde trabeatum consulem aperire portas dicunt eo habitu quo Quirinus fuit[n]—Janus ergo a quo sumsit exordium (Varro)[o] quæro quisnam sit? respondetur mundus est[p]

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[k] Festus, iii. 76. 10. Chaos.
[l] Æneid, vii. 607. Servius in loc.
[m] Ibid. xii. 198. Servius in loc.
[n] Ibid. vii. 610. Servius in loc.
[o] Cf. De Civitate, vii. 2. 4. 28.
[p] Augustin, De Civitate, vii. 7.

—Sed jam bifrontis simulacri interpretatio proferatur. duas enim facies ante et retro habere dicunt, quod hiatus noster cum os aperimus mundo similis videatur[q]—*E Varrone;* Ut in superioribus initium fecimus a cœlo cum diximus de Jano, quem alii cœlum alii dixerunt esse mundum, sic de feminis initium scribendi fecimus a Tellure[r]—Incipiamus ergo sollemniter ab Jano et nos patre, quem quidam ex vobis mundum annum alii solem esse prodidere nonnulli[s]—

Dic mihi nunc quæso dic antiquissime divûm
Respondesne his Jane pater[t]?

Jane pater! Jane tuens! Dive biceps biformis!
O cate rerum sator, o principium deorum,
Stridula cui limina cui cardinei tumultus
Cui reserata mugiunt aurea claustra mundi
Tibi vetus ara caluit Aborigineo sacello[u].

v. Mythici referunt regnante Jano omnium domos religione ac sanctitate fuisse munitas; idcircoque ei divinos honores esse decretos, et ob merita introïtus et exitus ædium eidem consecratos. Xenon quoque primo Italicωn tradit Janum in Italia primum diis templa fecisse et ritus instituisse sacrorum: ideo eum in sacrificiis præfationem meruisse perpetuam. quidam ideo eum dici bifrontem putant quod et præterita sciverit et futura providerit. sed physici eum magis consecrant argumentis divinitatis. nam sunt qui Janum eundem esse atque Apollinem et Dianam dicant, et in hoc uno utrumque exprimi numen affirment. etenim sicut Nigidius quoque refert apud Græcos Apollo colitur qui *θυραῖος* vocatur, ejusque aras ante fores suas celebrant, ipsum exitus et introïtus demonstrantes potentem. idem Apollo apud illos et Ἀγυιεὺς nuncupatur, quasi viis præpositus urbanis. illi enim vias quæ intra pomœria sunt ἀγυιὰς appellant. Dianæ vero ut Triviæ viarum omnium iidem tribuunt potestatem. sed apud nos Janum omnibus præesse januis nomen ostendit, quod est simile *θυραίῳ*. nam et cum clavi et virga figuratur, quasi omnium et portarum custos et rector viarum. pronuntiavit Nigidius Apollinem Janum esse, Dianamque Janam adposita *d* littera, quæ sæpe *i* litteræ caussa decoris adponitur; ut *reditur, redhibetur, redintegratur,* et similia. Janum quidam solem demonstrari volunt, et ideo geminum, quasi utriusque januæ cœlestis potentem; qui exoriens aperiat diem occidens claudat. invocarique primum cum alicui deo res divina celebratur ut per eum pateat ad eum cui immolatur accessus, quasi preces supplicum per portas suas ad deos ipse transmittat. inde et simulacrum ejus plerumque fingitur manu dextera trecentorum et sinistra sexaginta et quinque numerum retinens, ad demonstrandam anni dimensionem quæ præcipua est solis potestas.

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[q] Augustin, De Civitate, vii. 8.
[r] Ibid. 28.
[s] Arnobius, iii. 117.
[t] Juvenal, vi. 392.
[u] Anthologia Vett. Latinorum Epigramm. et Poemat. i. 13. Ep. xxvii. A. Septimii Sereni Falisci.

Alii mundum id est cœlum esse voluerunt, Janumque ab eundo dictum, quod mundus semper eat dum in orbem volvitur, et ex se initium faciens in se refertur. unde et Cornificius Etymorum libro tertio Cicero inquit non Janum sed Eanum nominat ab eundo . . . ideo et apud nos in quatuor partes spectat ut demonstrat simulacrum ejus Faleriis advectum*. Gavius Bassus in eo libro quem de diis composuit Janum bifrontem fingi ait quasi superum atque infimum janitorem; eundem quadriformem quasi universa climata majestate complexum. Saliorum quoque antiquissimis carminibus Deorum Deus canitur. Marcus etiam Messala Cn. Domitii in consulatu collega (U. C. 701. B. C. 53) idemque per annos quinquaginta et quinque augur de Jano ita incipit: Qui cuncta fingit eademque regit, aquæ terræque vim ac naturam gravem atque pronum in profundum dilabentem, ignis atque animæ levem immensum in sublime fugientem, copulavit circumdato cœlo: quæ vis cœli maxima duas vis dispares colligavit.

In sacris quoque invocamus Janum Geminum, Janum Patrem, Janum Junonium, Janum Consivium, Janum Quirinum, Janum Patulcium et Clusivium. cur Geminum invocemus supra jam diximus: Patrem quasi deorum deum: Junonium quasi non solum mensis Januarii sed omnium mensium ingressus tenentem. in ditione autem Junonis sunt omnes Kalendæ. unde et Varro libro quinto Rerum Divinarum scribit Jano duodecim aras pro totidem mensibus dedicatas. Consivium a conserendo, id est a propagine generis humani quæ Jano auctore conseritur: Quirinum quasi bellorum potentem, ab hasta quam Sabini *curim* vocant: Patulcium et Clusivium quia bello portæ ejus patent pace clauduntur. hujus autem rei hæc caussa narratur[w]—Romæ quoque Kalendis omnibus præter quod pontifex minor in curia Calabra rem divinam Junoni facit etiam regina sacrorum porcam vel agnam in regia Junoni immolat: a qua etiam Janum Junonium vocatum esse diximus, quod illi deo omnis ingressus huic deæ cuncti Kalendarum dies videantur adscripti. cum enim initia mensium majores nostri ab exortu lunæ servaverint jure Junoni addixerunt Kalendas, lunam ac Junonem eamdem putantes; vel quia luna per aërem meat, (unde et Græci lunam Ἄρτεμιν nuncuparunt, id est ἀεροτόμον, quod aëra secat,) Juno autem aëris arbitra est, merito initia mensium id est Kalendas huic deæ consecraverunt[x]—Unde nos quoque Janum patrem vocamus solem sub hac appellatione venerantes[y]—Unde et Romani solem sub nomine et specie Jani Didymæi Apollinis appellatione venerantur[z]—Ῥητέον τοίνυν περὶ Ἰανοῦ, τίς τε ἄρα ἐστὶ καὶ τίς ἡ περὶ αὐτοῦ δόξα γέγονε τοῖς ἀρχαίοις. ὁ Λαβεὼν οὖν φησιν αὐτὸν καλεῖσθαι Ἰανὸν κοσίβιον, τουτέστι βουλαῖον, Ἰανὸν κήνουλον οἷον εὐωχιαστικὸν, πατρίκιον ὡσεὶ αὐτόχθονα, κλουσίβιον ἀντὶ τοῦ ὁδιαῖον, Ἰουνώνιον τουτέστιν ἀέριον, κυρῖνον ὡσανεὶ πρόμαχον, πατούλκιον καὶ κλούσιον οἱονεὶ θυρεὸν, κουριάτιον οἱονεὶ ἔφορον εὐγενῶν· Κουριάτιοι γὰρ καὶ Ὁράτιοι ὀνόματα εὐπατριδῶν εἰσι. καὶ οἱ μὲν δίμορφον αὐτὸν μυθολογοῦσι, νῦν μὲν κλεῖς τῇ δεξιᾷ φέροντα ὡσανεὶ θυρεὸν, νῦν δὲ τῇ μὲν δεξιᾷ τριακοσίας τῇ δὲ ἑτέρᾳ ἑξήκοντα πέντε ψήφους ἀριθμοῦντα ὥσπερ τὸν ἐνιαυτόν. ἔνθεν καὶ τετράμορφον ἀπὸ τῶν τεσσάρων τροπῶν . . . . ἄλλος δὲ Αἰωνιάριον αὐτὸν ἑρμηνεῦσαι βιάζεται ὡσεὶ τοῦ αἰῶνος πατέρα, ἢ ὅτι ἔννον τὸν ἐνιαυτὸν Ἕλληνες εἶπον, ὡς Καλλίμαχος ἐν πρώτῳ Αἰτιῶν.

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* Cf. Servius ad Æneid, vii. 407. Supra, Page 201.

Τετράενον Δαμάσου παῖδα Τελεστορίδην.

ἢ ἀπὸ τῆς ἴας ἀντὶ τοῦ τῆς μιᾶς κατὰ τοὺς Πυθαγορείους. ὅθεν ὁ Μεσσάλας τοῦτον εἶναι τὸν αἰῶνα νομίζει. καὶ γὰρ ἐπὶ τῆς πέμπτης τοῦ μηνὸς τούτου ἑορτὴν αἰῶνος ἐπετέλουν οἱ πάλαι[a]—Δυοκαίδεκα πρυτάνεις πρὸς τοῦ Νουμᾶ τοὺς καλουμένους Σαλίους ὁρισθῆναί

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[w] Macrobius, Saturnalia, i. 9. 236 sqq. The story relating to the torrent of hot water, supposed to have been emitted from the ground in the contest between Romulus and Tatius, is here subjoined. Cf. Ovid, Fasti, i. 259–276.

[x] Ibid. i. 15. 275.

[y] Ibid. 17. 293.

[z] Ibid. 297.

[a] Lydus, De Mensibus, iv. 1. 50. 14.

φασιν, ὑμνοῦντας τὸν Ἰανὸν, κατὰ τὸν τῶν Ἰταλικῶν μηνῶν ἀριθμόν. ὁ δὲ Βάρρων ἐν τῇ τεσσαρεσκαιδεκάτῃ τῶν θείων πραγμάτων φησὶν αὐτὸν παρὰ Θούσκοις οὐρανὸν λέγεσθαι· καὶ ἔφορον πάσης πράξεως. καὶ ποπάνωνα, διὰ τὸ ἐν ταῖς καλάνδαις ἀναφέρεσθαι πόπανα. Φοντήϊος δὲ ἐν τῷ περὶ ἀγαλμάτων ἔφορον αὐτὸν οἴεται τοῦ παντὸς χρόνου τυγχάνειν, καὶ ταύτῃ δωδεκάβωμον εἶναι τὸν αὐτοῦ ναὸν κατὰ τὸν τῶν μηνῶν ἀριθμόν. ὁ δὲ Γάϊος Βάσσος ἐν τῷ περὶ θεῶν δαίμονα αὐτὸν εἶναι νομίζει τεταγμένον ἐπὶ τοῦ ἀέρος, καὶ δι' αὐτοῦ τὰς τῶν ἀνθρώπων εὐχὰς ἀναφέρεσθαι τοῖς κρείττοσι· ταύτῃ δίμορφος εἶναι λέγεται ἔκ τε τῆς πρὸς ἡμᾶς ἔκ τε τῆς πρὸς θεοὺς ὄψεως. ὅ γε μὴν Λουτάτιος ἥλιον, παρὰ τὸ ἐφ' ἑκατέρας πύλης ἄρχειν ἀνατολῆς ἴσως καὶ δύσεως. φασὶ δὲ τὸν αὐτὸν καὶ ἔφορον τῶν ἐπὶ πόλεμον ὁρμώντων τυγχάνειν, καὶ διὰ μὲν τῆς μιᾶς ὄψεως ἀποπέμπειν διὰ δὲ τῆς ἑτέρας ἀνακαλεῖσθαι τὸ στράτευμα. ὁ δὲ Πραιτέξτατος ὁ ἱεροφάντης, ὁ Σωπάτρῳ τε τῷ τελεστῇ καὶ Κωνσταντίνῳ τῷ αὐτοκράτορι συλλαβὼν ἐπὶ τῷ πολισμῷ τῆς εὐδαίμονος ταύτης πόλεως, δύναμιν αὐτὸν εἶναί τινα βούλεται ἐφ' ἑκατέρας ἄρκτου τεταγμένην, καὶ τὰς θειοτέρας ψυχὰς ἐπὶ τὸν σεληνιακὸν χορὸν ἀποπέμπειν. καὶ ταῦτα μὲν οἱ Ῥωμαίων ἱεροφάνται. ἄλλος δέ φησι τὸν Ἰανὸν ἥρωα γενέσθαι, καὶ πρῶτον κατασκευάσαι τεμένη καὶ τιμὰς τοῖς θεοῖς ἐπιτελέσαι· καὶ διὰ τοῦτο μνήμην αὐτοῦ ἐν τοῖς ἱεροῖς γενέσθαι. ὅ γε μὴν Δημόφιλος πρῶτον αὐτὸν βούλεται οἴκους καὶ πυλεῶνας κατασκευάσαι, καὶ ἀπὸ τῆς ἰανούας (θύρας) Ἰανουάριον ὀνομασθῆναι. ἔχειν δὲ αὐτὸν καὶ ἀδελφὴν τοῦνομα Καμασήνην. Ὀβίδιος ὁ Ῥωμαῖος Ἰανὸν ἀλληγορεῖ τὸ χάος εἶναι[b].

vi. Ἐπεὶ δ' ἐνταῦθα τοῦ λόγου ἐσμὲν, συμβαλοῦμαί τι μέλος ὑμῖν εἰς ἔρωτα κατὰ τὸν Κυθήριον ποιητήν. ὅτι Ἰανὸς ὁ παρ' ἡμῖν θεὸς, ὃν καὶ πατέρα προσαγορεύομεν, πρῶτος εὗρε στέφανον. ἱστορεῖ δὲ τοῦτο Δράκων ὁ Κερκυραῖος ἐν τῷ περὶ λίθων, γράφων οὕτως· Ἰανὸν δὲ λόγος ἔχει διπρόσωπον γεγονέναι, τὸ μὲν ὀπίσω τὸ δ' ἔμπροσθεν ἔχοντα πρόσωπον. ἀπὸ τούτου καὶ τὸν Ἰανὸν ποταμὸν καὶ τὸ ὄρος Ἰανὸν ὀνομάζεσθαι, κατοικήσαντος αὐτοῦ ἐπὶ τοῦ ὄρους. πρῶτον δὲ καὶ στέφανον εὑρεῖν καὶ σχεδίας καὶ πλοῖα· καὶ νόμισμα χαλκοῦν πρῶτον χαράξαι. διὸ καὶ τῶν κατὰ τὴν Ἑλλάδα πολλὰς πόλεις, καὶ τῶν κατὰ τὴν Ἰταλίαν καὶ Σικελίαν, ἐπὶ τοῦ νομίσματος ἐγχαράττειν πρόσωπον δικέφαλον, καὶ ἐκ θατέρου μέρους ἢ σχεδίαν ἢ στέφανον ἢ πλοῖον. τοῦτον δὲ τὴν ἀδελφὴν γήμαντα Καμίσην υἱὸν μὲν Αἴθηκα θυγατέρα δὲ Ὀλιστήνην γεννῆσαι. καὶ αὐτὸν ὡς

[b] Lydus, De Mensibus, iv. 2.

μειζόνων ὀρεγόμενον πραγμάτων εἰς τὴν Ἰταλίαν διαπλεῦσαι καὶ οἰκῆσαι τὸ πλησίον Ῥώμης ὄρος κείμενον, τὸ ἀπ' αὐτοῦ Ἰάνουκλον ὀνομαζόμενον[c]—Regionem etiam quæ nunc vocatur Italia regno Janus obtinuit; qui ut Hyginus Protarchum Trallianum secutus tradit cum Camese æque indigena terram hanc ita participata potentia possidebat ut regio Camasene oppidum Janiculum vocitaretur. post ad Janum solum regnum redactum est: qui creditur geminam faciem prætulisse ut quæ ante quæque post tergum essent intueretur. quod procul dubio ad prudentiam regis sollertiamque referendum est, qui et præterita nosset et futura prospiceret: sicut Antevorta et Postvorta divinitatis scilicet aptissimæ comites apud Romanos coluntur. hic igitur Janus cum Saturnum classe pervectum excepisset hospitio, et ab eo edoctus peritiam ruris ferum illum et rudem ante fruges cognitas victum in melius redegisset, regni eum societate muneravit. cum primus quoque æra signaret servavit et in hoc Saturni reverentiam, ut quoniam ille navi fuerat advectus ex una quidem parte sui capitis effigies ex altera vero navis exprimeretur, quo Saturni memoriam etiam in posteros propagaret* . . . . etiam illud in promtu est, quod posteri quoque duos eis continuos menses dicarunt, ut December sacrum Saturni Januarius alterius vocabulum possideret. cum inter hæc subito Saturnus non comparuisset excogitavit Janus honorum ejus augmenta. ac primum terram omnem ditioni suæ parentem Saturniam nominavit: aram deinde cum sacris tamquam deo condidit quæ Saturnalia nominavit. tot sæculis Saturnalia præcedunt Romanæ urbis ætatem[d].

* The most probable explanation of these ancient coins, and of their peculiar devices, which are so often alluded to in confirmation of the fable of Janus and Saturn, (if they had an actual existence, and were of such an antiquity as is thus assigned to them,) is That the ship was intended to commemorate the ark; and the human figure, with two heads or two faces, the two races of mankind; the one before, the other after, the Flood. These coins therefore were properly memorials of the deluge; and attestations of the general tradition relating to it, which prevailed so long afterwards.

[c] Athenæus, xv. 46. Cf. Eustathius, ad Od. E, 249. i. 212=220.

[d] Macrobius, Saturnalia, i. 7. 229.

SECTION III.—*Remarks on the preceding statements.*

The first observation which may be made on the preceding statements is *this*, That two very different classes of testimony on one and the same point are combined in them; one that the Janus of Roman antiquity was an human being and even an historical character, an hero or king of old—as old it might be as society itself, as civilization and refinement; but not older than mankind, much less than the rest of the universe: the other that there was nothing human either in the conception or in the nature of Janus; that he belonged to an order of beings altogether distinct from and altogether superior to man: that he was divine, and even the greatest of divinities, the first and oldest of the gods themselves. These different representations of the same person cannot both be true. Having to choose between them, we do not hesitate to reject the former, and to receive only the latter, as entitled *a priori* to any consideration.

Secondly, it does not appear even from any of the representations of this latter class that, howsoever truly the Janus of Roman antiquity might have been conceived or proposed from the first as divine, such a conception and such a character was older among the Romans or any where else (under that name at least) than the time of Numa Pompilius. The first temple erected to the Roman Janus was erected by Numa[e]: the first representation of any such character, of such a kind as was ever after supposed to be most peculiar to him and most proper for him, was made by Numa*.

* There is nothing in the preceding accounts which can connect the existence and recognition of such an object of worship as Janus with the Romans or their neighbours, before the time of Numa, except the apocryphal story, relating to the sudden eruption of a spring of hot water in the midst of the contest between the Romans and Sabines: near the Porta Janualis at Rome and the Viminal hill. That there might be a natural spring of that kind, and in that quarter, of great antiquity, we are not prepared to deny; that it first appeared just at the critical moment when something was wanted to stop the approach of the Sabines in that direction, and that it was due to the timely intervention of Janus himself, and

[e] Livy, i. xix. Plutarch, Numa, xx. Cf. Servius ad Æneid, vii. 607. Supra, 201.

Thirdly, though the first recognition of a particular object of worship under any name and in any character, which went no further back than the time of Numa Pompilius, might be comparatively recent in itself; yet among the Romans it would be as old as their own existence, and much older than any thing of the same kind which they could have derived only from the Greeks. The Hellenic conception of Aphroditè was still unknown to the Romans in the time of Romulus; and even the word Venus, according to Varro, had not at that time been introduced into the Latin language. And if Arnobius is to be believed the Grecian conception of Apollo was equally a stranger to them in the reign of Numa. Non doctorum in litteris continetur Apollinis nomen Pompiliana indigitamenta nescire[f]? Indigitamenta, according to Varro[g], sunt carmina Pontificum quæ et nomina Deorum et rationes ipsorum nominum continent: which pointed, as it were, to their names, *quasi digito indicantia*[h]. The name of Apollo did not occur in these, though as old as the time of Numa; but the name of Janus did so. The Carmina Saliaria were either the composition of Numa, or as old as Numa; and in these as Macrobius told us[i] Janus was celebrated as Deorum

known to have been so from the first; we do not believe. No such incident as this, either as real or as supposed, appears in the history of that contest in Livy, Dionysius, or Plutarch. The story was no doubt invented in after times to account for one of the titles of Janus, as Macrobius supposes; or for the name of the Porta Janualis: though Varro (De Lingua Lat. iv. 46) tells us that name was given it by Numa, when he founded the Temple of Janus itself. There is no proof that even the Janiculum had any such name before the time of Numa and the introduction of the worship of Janus by Numa. Festus indeed virtually derives this name from *janua*, quasi *janicula*. But Ovid with more truth in our opinion, and more consistently with analogy, derives it from the worship of Janus, *a Jano colendo*—

Arx mea collis erat, quem cultrix nomine nostro
Nuncupat hæc ætas Janiculumque vocat.

Numa's having selected it for the site of his own burial place seems to associate it with the worship of his own Janus more particularly. The hill too so called was still exterior to the walls of the city in his time: having been first enclosed by Ancus Martius. Livy, i. 33: Dionysius, iii. 45.

[f] ii. 95 ad calc.

[g] Fragmenta, 379.

[h] Cf. Festus, ix. 186. 4: Indigitamenta.

[i] Scaliger, De Emendatione, ii. 175 A, quotes a fragment of one of them—
Duonos Manos ceruses Deivos
Janos venet.

Deus. Axamenta, says Festus[k], dicebantur carmina Saliaria quæ a Saliis sacerdotibus componebantur in universos homines. nam in deos singulos versus facti a nominibus eorum appellabantur, ut Janvalii, Junonii, Minervii. It is very observable too that Varro enumerating the Dii selecti as they were styled[l], both Greek and Roman, (the former including all the classical divinities of the Greeks,) places Janus at the head of the list; as if he was confessedly the oldest and greatest of all: at least among the Romans.

Fourthly, it appears from the above representations that, agreeably to a standing rule of the Roman ritual of great antiquity, no act of divine worship could be performed, on any occasion or for any purpose, without invoking the presence and cooperation of Janus, preliminary to it; and that according to the popular view and belief of his peculiar offices, and of his relation to every thing else, no prayer addressed to any other object of worship could reach its destination or obtain its petition, except through him. It is observable too that his most proper style and title from the first appears to have been that of Janus Pater; as if he in particular was always understood to have been the author of all things, and the father both of gods and of men. These circumstances of distinction, peculiar as they seem to have been to him, do strongly imply that, (in the estimation of the ancient Romans,) he was not only the oldest, but the greatest of beings; that as the Salian songs described him he was Deorum Deus: that he was before them all and greater than them all; that in comparison of him all the rest were secondary and subordinate, and might even have derived their divinity from him.

Fifthly, it appears also with respect to the mode of representing this conception of theirs, which the ancient Romans termed Janus, that there was always something peculiar to it in comparison with the usual mode of representing even the persons of the gods; but that the peculiarity was confined to a certain part of the figure, it did not affect the whole. It is agreed that none of the images or likenesses of the gods besides, even among the Romans, had more heads or more faces than one; but that the image or likeness of Janus had always more faces than one. It appears that to have more faces than one was absolutely necessary to the conception and character of Janus; and that Janus would not have been Janus, if represented, like any of the rest of the gods, with a single face. It follows that Janus could not properly have less than *two* faces. The question is Whether he could with propriety have more than two? It appears indeed, from the above testimonies, that Janus was actually represented even among the Romans with four faces as well as two; and yet never with more than four, nor with less than two: but it appears also that this mode of representing him with four faces was not the original one among the Romans, but borrowed from an image of Janus, found at Falerii a Tuscan city, much later than the time of Numa; and brought from thence to Rome. It follows that the first and the original mode of representing Janus, (that which must have been devised by Numa himself, and must have been properly intended to express Numa's idea of the nature and person of his own Janus,) was that which gave him two faces; but not more than two. And this is confirmed first by the proper style and title of Janus himself among the Romans, taken from this peculiarity of his figure; Janus *geminus*, Janus *biceps*, Janus *bifrons*, Janus *biformis*, or the like: and secondly by the explanations of this peculiarity of his figure found on record; which are invariably such as imply a twofold not a quadrifold relation and opposition of a certain kind: an opposition of two things, with a common relation to some thing else; like that of the past to the future in relation to time, of the east to the west in relation to the heavens, of the ingress to the egress in relation to a door, of the beginning to the end in relation to the same process of a certain kind*.

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[k] i. 46. 2. Axamenta.

[l] Cf. Augustin, De Civitate, vii. 2: Deos selectos Varro unius libri contextione commendat, Janum, Jovem, Saturnum, Genium, Mercurium, Apollinem, Martem, Vulcanum, Neptunum, Solem, Orcum, Liberum Patrem, Tellurem, Cererem, Junonem, Lunam, Dianam, Minervam, Venerem, Vestam. This title of the *Dii selecti* he seems to have borrowed from Ennius: though Varro makes their number here twenty, Ennius made it twelve: Juno, Vesta, Ceres, Diana, Minerva, Venus, Mars, Mercurius, Jovi', Neptunus, Volcanus, Apollo. Anthologia, ut supra, Epigramm. i. i.

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* With regard to the other representation, which exhibited Janus with four faces, it is explained on the same principle too of an opposition and a

It appears also from some of our testimonies that the figure of Janus was represented holding a rod or staff in one hand and a key in the other; from others that it was not represented with any thing in either hand, but with the hands, (or at least the fingers,) so disposed as to seem to be counting; and to be telling a number which, according to the method of counting with the fingers anciently employed, was understood to be the particular number of 365. It is manifest that one and the same figure could not be represented doing both these things at once. Nor does it appear that the figure of Janus was ever represented as both holding certain things in his hands, and counting a certain number on the fingers, at the same time; only that all his figures were represented doing one or the other of these things: so that it was as general and as well understood a characteristic of the ancient Janus, with respect to his hands, either to be holding a rod in one and a key in the other, or to be counting a certain number with the fingers in both, as, with respect to his head, to have two faces instead of one.

The question is therefore, Of these two modes of representing this particular part of his figure, which was the older and the more genuine one? which must have proceeded from Numa? It seems to be agreed that in one of these modes of representing him, (that which exhibited him with a key and a staff,) the key was symbolical of his supposed office and relation as the porter of the year, the janitor or claviger, who opened and shut the gates of time, and let in and let out the year; and the staff, of his kindred office of the rector or custos viarum. This mode of representing him therefore

relation of a certain kind; but, as far as appears from the above statements in general, only on the supposition that Janus himself was either the type of the heavens, which have four principal aspects, the east the west the north and the south; or the type of the year, which has four quarters or seasons, the spring the summer the autumn and the winter. In our opinion this latter construction of the person of Janus is the true explanation of this mode of representing him. These four faces of Janus denoted the four seasons; as Janus himself did the year. It could not therefore have been older than the correction of the calendar by Numa; which first fixed and determined the relation of the seasons to the civil calendar: and first proposed Janus in a definite relation to the calendar, by giving a name to the first month which was currently believed to have been taken from him.

must have been later than the correction of the calendar, when the month of Januarius became the head of the year, and apparently the month of Janus also; and it must have been founded upon it *. It follows that the other mode of representing the fingers, viz. so disposed as to appear to be counting a certain number, must have been the older of the two, and the original idea of Numa. And indeed, as we saw supra [m], this in particular does appear to have been the traditionary mode of representing the hands of the figure of Janus, handed down from the time of Numa himself.

Lastly, besides these two circumstances of distinction, one affecting the head and face, the other the hands, of the figure of Janus, it does not appear that there was any thing different in the proper mode of representing the likeness of the Roman Janus from the usual one of the representation of any other of the gods of antiquity. We do not therefore see what foundation there could have been in this mode of representing him for those traces of confusion which Ovid seems to have discovered in it; characteristic as he would imply of the disorder of chaos, out of which he supposes Janus himself to have come into being. To hold the hands or the fingers merely in a certain posture was no proof of confusion; and to have two faces instead of one was to have something of the same kind more than any similar figure, but it was not disorder or confusion: and in the particular case of Janus it was not even redundancy or superfluity. This second face was as indispensable to the essence of that figure as the first; and Janus would not have been himself from the first without two faces, and without the power of looking both before him and behind him at once.

To sum up therefore the conclusions which appear to be justly deducible from the preceding testimonies, as far as

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* And in this point of view the symbol of the key it is evident was much more characteristic of Janus, and much more significant, than that of the staff; and it is observable that, though Ovid described his Janus as holding the staff in his right hand and the key in his left, yet Lydus gave us to understand that the statues of Janus had the key in the right hand: and therefore, if they had a staff also, they must have had it in their left hand. Cf. Arnobius, vi. 209.

[m] Page 200.

they are consistent with each other. i. The Janus of Roman mythology was the oldest and greatest of the Roman gods; and yet not older than the time of Numa. ii. The Janus of Roman mythology from the time of Numa downwards was properly represented only in one way, and that way peculiar to himself, common to none of the Roman gods besides. iii. The peculiarity of the representation of the Janus of Roman antiquity consisted in two things only; one that the head of Janus had two faces, one looking one way and the other the opposite way—the other that the hands and fingers of Janus were so disposed and so configurated as to imply that he had a particular and special relation to a certain number: which number was always supposed to be that of 365.

SECTION IV.—*On the relation of Janus to Time deducible from the peculiar mode of representing him; and on the explanation of his attributes and characters deducible from that relation.*

Now these different conclusions concerning the Janus of Numa being supposed to have been established on competent testimony as so many matters of fact; though we were to stop here in the prosecution of our inquiries, no one could say that we did not possess in these several facts alone data sufficient for a just and consistent explanation of the nature of the conception, so called and so represented from the first. No one could deny that, if the Janus of Numa had been conceived and proposed from the first in the special and individual character of the Type and Impersonation of TIME, a more natural and a more significant mode of representing him to the senses in that capacity than that which Numa appears to have actually adopted could scarcely have been devised.

For first, with respect to his two faces, one looking behind him, the other before him; the only division which can be made of time is into the past and the future; and these are so connected that the latter depends upon and presupposes the former perpetually. The course of time is necessarily forwards, but the aspect of time perpetually is backwards. Its origin is always in the past; its concatenation or continuation in the future. Nothing therefore could be more natural or more necessary than that the impersonation of time should have two faces, one the reverse of the other; and that he should have the one, as the representative of time past, and the other as that of time future: and that with the one he should look perpetually back on the beginning of his own existence, with the other perpetually forwards upon its decursus, continuance, or consummation.

Secondly, with regard to the configuration of the hands and the fingers; if that was such as to intimate an express relation to a particular number, and that number 365, no one can hesitate to conclude that this number must have been meant of the days of the year: and in particular of the days of the equable year, which was limited to that number perpetually. To have then an express relation to this number in particular was to have an express relation to the year, i. e. to the equable year. Now the year after all is merely one of the measures of time; only it is the most complete and most perfect of all, because it is the greatest and most comprehensive, and necessarily includes the other two. For there are but three really different measures of time, the year, the month, and the day; and, though the ultimate element of all the three is the day, yet that in which all the three are included at once perpetually is the year[n]. The impersonation of time then must have a distinct and express relation to the measures of time; for Time itself could have no existence except in and through the proper measures of time. There might be duration, without the measures of time, succession or continuance flowing on in one and the same way without interruption and without variation; but there could not be time: which is duration defined and limited, and continued and propagated, by the measures of time. If the Janus of Numa therefore was really proposed from the first as the type of time, and of time past and time future at once; he must have been proposed with a certain relation to the measures of time: and it was most natural that he should have been exhibited in such a relation to the greatest and most perfect of those measures in general; that is to the year. For that would be only another mode of declaring that time past and time future always had proceeded and always would proceed in one way; always had been, and always would be, subject to the same common measures: and that those measures whether of time past or of time future were always summed up and comprehended most completely in this particular form of the year.

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[n] On these subjects we refer to our Fasti Catholici generally, i. 1–91. Diss. i—iii.

It follows upon this principle that those testimonies of antiquity which represented Janus as the impersonation of the Greek *αἰὼν* came nearest to the truth of his character from the first. For as we shewed at large in our Fasti Catholici[o] the Greek *αἰὼν* itself did not denote *eternity*, i. e. duration without beginning and without end; but time, i. e. duration which had a beginning at least, howsoever far back that might go, whether it was destined to have an end or not. Among the Romans who appear to have taken this view of the nature and relation of their own Janus, Lydus made mention of Messalla; the same in all probability who was quoted by Macrobius also, and represented as consul along with Cn. Domitius (Ahenobarbus) U. C. 701 B. C. 53: though the passage there cited from him did not set forth Janus as the type of duration howsoever vast and extensive measured or measurable perpetually by time; but as the informing and ordering principle of the universe, to whom the *διακόσμησις* of the existing system of things, as well as the first separation and distinction of its elementary parts, whether in heaven or on earth, was to be attributed. Among the Greeks, Longinus from the same view of the nature of Janus appears to have explained his name in the Roman style, (Janus pater,) as if it meant *αἰῶνος πατήρ*; and the Roman name of the month, supposed to be called after him, as if it was *Αἰωνοάριος*: neither of which explanations in itself is defensible; but both shew the point of view in which Janus himself must have been regarded, to give occasion to them*.

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* It was asserted also by Lydus, as we saw, that the 5th of January Roman, the Nones, because of the same relation of Janus himself to *αἰὼν*, was devoted anciently to the *αἰῶνος ἑορτή*: for which assertion we have no where met with any authority. The Nones of January have no particular

[o] ii. 271—288.

The first use which we may make of this conclusion, respecting the kind of impersonation intended to be denoted by the Janus of Numa, is to explain the rank and the pre-eminence assigned to him in particular above the rest of the gods. That would be a necessary consequence of the relation in which he himself was considered to stand to time. There was none of the gods of antiquity besides, neither among the Romans nor even among the Greeks, who was not supposed to have come into existence in *time;* some earlier indeed, and some later, in comparison of one another, but *all* without exception *in time.* Time itself must consequently have been older than any of these gods, and any where; and if time, the impersonation of time: that is the Janus of Numa. Janus alone, if not older, was at least not younger, than time. Janus and time had come into existence together; and one was as old as the other. Every thing else, even the most divine and excellent, was after all a creature or production of time. Janus alone was no creature of time, nor any more dependent on time than time on itself. With reason then might the Janus of Roman mythology, according to the first and original view of his character, stand at the head of the rest of the gods; as the first of all, and therefore as the greatest of all: and even as the father of all, if all were the creatures of time.

In the next place, this view of the proper character and relation of the Janus of Numa is best calculated to explain those other opinions concerning him, which have come down supported by names of great authority; viz. that Janus was the type of Chaos, the type of Heaven, the type and representation of the Universe, or any thing to the like effect. These opinions substantially amount to *this;* That Janus was the impersonation of the existing order and system of things

distinction assigned them in the Julian calendar. We suspect that Lydus confounded this supposed *αἰῶνος ἑορτὴ* on the *Nones* of January, with a ceremony peculiar to the *ninth* of January, of great antiquity and in honour of Janus, called the Agonalia. The Agonalia, according to Valerius Antias quoted by Macrobius, (Saturn. i. 4—211, after Julius Modestus,) were instituted by Numa. Their proper date was the ninth of January; *die nono:* which might easily be mistaken for the Nones. Cf. Ovid, Fasti, i. 317: Festus, i. 17. 5. Agonium: and the Maffæan and Prænestine calendars apud Foggini.

from the time when it actually came into being; i. e. became what it was. He was the type or reflection of the *κόσμος* or *διακόσμησις*, resulting from the union of matter and form, *ἡ ὕλη* and *τὰ εἴδη*. It was not implied in these opinions, as far as we can see, that Janus was Chaos at any time or in any sense; that he was or ever had been the type of confusion and disorder which must have been implied in such a pre-existing state of things as chaos: but that he was the reflection and impersonation of that which came into being *out of* chaos; consisting indeed of the same elements and materials as chaos itself, but put together and compounded in a very different way: the actual state of order and harmony, which sprang up at last out of the confusion and discord of chaos. And it was but an enlargement, and perhaps an improvement, of this opinion to maintain, as some appear to have done, that Janus was himself the actuating and informing principle, which first introduced order and form and regularity into the confusion and discord of chaos.

It is manifest therefore that on these suppositions chaos was older than Janus; but not that which some time or other came into existence out of chaos. And this too was only another way of intimating the relation of Janus to time; for matter, in its elements merely, (as the ancients universally supposed,) must have been from eternity; matter in the sense of form must have had a beginning in time. Even Janus then could not have been eternal, though he must be as old as the world. It is easy to see too that Janus, as the same with time, must have a close and inseparable connection with motion or *κίνησις* in general, which is itself the essence of time[p]; the motion of the universe or of its parts: which properly constitutes time. And this explains that particular view of his nature and character, which some of our authorities appear to have conceived, when they spoke of him as the same with the heavens, in the sense of the heavenly motions; which are in fact the proper measures of time, and the instrumental means by which time, as a particular form of duration, is discriminated from simple duration.

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[p] Fasti Catholici, i. 1–13.

SECTION V.—*On the relation of the Roman Janus to the Sun and to the Moon; and on the derivation of the name of* Diana *from that of Janus.*

Again, if the Janus of Numa was expressly intended as the type and impersonation of time, yet with a special relation to the measures of time; it is manifest that among the heavenly luminaries concerned in the causation of time he must have been as closely connected from the first with none as with the sun and the moon. Accordingly some of our testimonies represent him in this light and in this relation; as the type of the sun. They do not indeed so distinctly represent him as also the type of the moon. But it is evident that as the impersonation of time, and in and through the measures of time, he must have had an equal relation to both; he must have been as capable of representing the moon as the sun: and what is more he must have been capable of representing both at once, or either individually, *pro re nata.*

The most intelligent of the Romans, as we perceive from the authorities produced *supra,* remarked that their own Janus appeared to unite in his single person the nature and attributes both of the Hellenic Apollo and of the Hellenic Artemis. On what principle could that be, if Janus was really older among the Romans than either of those names or of those ideas as derived from the Greeks; except that all three, the Roman Janus, the Grecian Apollo, and the Grecian Artemis, on comparison were seen to agree with each other, because they all agreed with something else, and that something the sun and the moon? the two latter indeed distinctly, one to the sun the other to the moon, but the former to both alike: so that Janus, through this common relation to the sun and to the moon at once, was capable of answering either to Apollo or to Artemis individually, or to both at once.

It must follow on this principle too that in the original conception and idea of Janus, as simply the impersonation of time whether in the abstract or as mixed up with its causes and measures perpetually, the distinction of sex could not have been applicable, or must have appeared in his case to be something accidental and indifferent. The Janus of Numa, the type of time in the abstract, or of the measures of time in the concrete, must be either a masculine or a feminine idea *pro re nata*; a masculine one, as identified with the sun, a feminine one, as the same with the moon. And this too appears to have been actually the case. We have produced proof[q] that among the common people, and especially the country people, down to the time of Varro Jana was still the familiar name of the moon; from which it must follow that whether the name of Janus in that form was originally applicable to the moon as much as to the sun, or not, the idea implied by it at least must have been common to both. It was no solecism in the idea or the thing to speak of Divos Janus in the sense of the moon, as much as of the sun; whatsoever it might seem to be in the phrase and enunciation.

The proper Roman name for the Artemis of the Greeks, in her proper relation to the Apollo of the Greeks also, it is well known is Diana. Concerning the etymology of this name the opinions of the most learned Romans appear to have been much divided. According to Varro, it was to be derived from *Divius*, as if *Diviana*; a construction of the meaning of the term which would rather have required Devius and Deviana, and through that *Deana*. Hanc, ut solem Apollinem, quidam Dianam vocant (Apollinis); vocabulum Græcum alterum (Apollinis sc.) Latinum alterum. et hinc quod in altitudinem et latitudinem simul Diviana appellata[r]. We need not hesitate to reject this definition of the name. Nigidius (Figulus) on the other hand, (the equal of Varro in learning and in the knowledge of antiquity, and superior to him in grammar and etymology as posterity appear to have thought,) as we learnt from Macrobius, derived it from Jana with the letter D simply prefixed. And this explanation, if true, would confirm the point for which we are contending; the applicability of the name of Jana to the moon as much as of that of Janus to the sun. The truth however compels us to reject this derivation also. The letter D which enters this name is not simply a prefix, nor added *euphoniæ gratia.* Nor are the cases to which Macrobius refers of the similar use of D before the letter I, in other words, cases in point; since D occurs there so inserted only in the middle of those words, but in this term Diana it occurs at the beginning: and that distinction is not an unimportant one.

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[q] Supra, p. 263. The idea of the universe, (mundus,) and consequently that of a power, a principle, an impersonation, the same with the universe, excluded the distinction of sex; or rather was necessarily capable of both, or of either *pro re nata*. Hence the identity of Jupiter and Juno in the opinion of some of the Romans; or the idea of a Jupiter who was just as much a Juno.

In hanc sententiam etiam quosdam versus Valerii Sorani exponit idem Varro in eo libro quem seorsum ab istis de cultu deorum scripsit: qui versus hi sunt:

Jupiter omnipotens regum rerumque deumque
Progenitor genetrixque deum, deus unus et omnis.

exponuntur autem in eodem libro ita ut eum marem existimarent qui semen emitteret feminam quæ acciperet: Jovemque esse mundum, et eum omnia semina ex se emittere, et in se accipere. "Qua caussa, inquit, scripsit Soranus Juppiter Progenitor genitrixque: nec minus cum caussa unum et omnia idem esse; mundus enim unus, et in eo uno omnia sunt:" Augustin, De Civitate, vii. 9. Cf. 11.

[r] Varro, De Lingua Lat. iv. 20. Cf. Festus, ix. 196. 9. Juvenalia: Juvenalia fingebantur Dianæ simulacra quia ea ætas fortis est ad tolerandam viam. Diana enim viarum putabatur Dea: though this might be because she was considered the same with Hecate. It is doubtful whether Varro meant his Divius in this instance of *De* and *via*, or

There can be no doubt (in our opinion at least) that this letter D, the first in the name of *Diana*, is part of the word *Dea*; and that resolved into its elements this word is compounded of two, *Dea*, and *Jana*, written *Iana*. And the origin of this compound name is probably to be found in that peculiarity of the conception and nature of the Janus of antiquity whereby it was considered as much a feminine as a masculine idea and person of its proper kind, and as much a masculine as a feminine one; as much a type of the moon as of the sun, and as much of the sun as of the moon. On this principle Janus must have been both thought of and spoken of at first, in either relation, as the *Deus Janus*: but in the course of time, and for many reasons, a distinction might come to be drawn in the use of this designation, which would appear to be required by the ordinary rules and modification of words in connection with ideas or things; viz. that when intended of the sun, confessedly a masculine conception, it should be the *Deus Janus*, when meant of the moon, confessedly a feminine one, it should be the *Dea Jana*.

Now in this designation of the Dea Jana, written *Dea Iana*, we have both the elements of the Roman name of *Diana*.

of *Duo* and *via*. The latter would have required Bivia or Biviana not Divia or Diviana: and it would necessarily have made the first syllable in Diana short—though it appears to have been originally long.

The first form which they would assume in composition would be *Deiana*. The next would be *Diana;* the classical form of the name itself. And in this name so derived the first syllable would necessarily be long; at least at first. The later poets commonly shorten it: but Ennius made it long, in his verses on the xii Dii Selecti[s].

Juno Vesta Ceres Diana Minerva Venus Mars
Mercurius Jovi' Neptunus Vulcanus Apollo.

And indeed it seems to have been long originally. Sane Dianam, observes Servius[t], veteres ideo melius producebant, quia sub divo dea sit, venandi gratia; a fanciful explanation of the reason, yet a good testimony to the fact itself, and to the old rule in this respect. Diana derived from Janus in the manner supposed by Nigidius must have had the first syllable short from the first: for though Janus as a dissyllable has the *a* long, Iänus as a trisyllable must have had the *i* short.

Nor is it difficult perhaps to assign the actual time when the moon, in the sense of the female Janus or the Dea Jana, was first publicly recognized among the Romans under this name of Deiana or Diana. Let us only be allowed to assume that the Roman Diana could not have been older at Rome than her own birthday. Now tradition and common belief had always handed it down among the Romans, as we have seen[u], that Diana was born on the Ides of Sextilis, afterwards called Augustus. The origin of this tradition was simply the fact that the oldest temple and oldest image of Diana, under that name, at Rome, (that of Diana in Aventino or Aventinensis,) was consecrated to her by Servius Tullius on that day[w]. We hope to make it appear hereafter that the year of that consecration was probably B.C. 547; and this is strongly confirmed by the fact that the Ides of Sextilis that year, (Cycle vii. 22. of the calendar of Numa,) fell on Sept. 6; and September 6 on the day of the full moon or the day before it*. On this principle Diana, or the Dea Iana, was born at the full of the moon; and that fact would be decisive that she must have been proposed and recognized from the first, under her proper style and title of Diana, as the female sun, that is, the female Janus, the Dea Jana: for the moon at the full is the most perfect reflection of the sun; and, if the moon must be regarded as feminine on the same principle as the sun as masculine, the full moon is the female sun.

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[s] Anthologia Vett. Epigr. et Poëm. Lat. i. Epigr. i.

[t] Ad Æn. i. 499.

[u] Supra, p. 259.

[w] Varro, De Lingua Lat. i. 14. Festus, xvii. 502. 6. Servorum Dies. Cf. xii. 277. 6. Nesi. Dionys. Hal. iii. 43: iv. 26. Cf. Livy, x. 42. The ædes Lunæ in Aventino, (probably founded at the same time and the oldest at Rome,) was destroyed by the fire in the reign of Nero, U. C. 817. A. D. 64. Tac. Ann. xv. 41.

We are informed also[x] that the image of Diana, dedicated on this occasion upon the Aventine hill, was copied from that of the Ἄρτεμις of Massilia or Marseilles; and that this had been copied from that of the Ephesian Ἄρτεμις, the most sacred image of that denomination among the Greeks, and unlike any other representation of the same goddess any where else among them. For this image of the Ephesian Ἄρτεμις, we are told[y], was πολύμαστος, or multimamma; covered with paps from top to bottom. What then could be implied by such a mode of representing the Diana of the Romans, except that, as their Janus was Janus Pater, so their Diana was Jana Mater; and as properly typified by the full moon in that capacity as he by the sun in the corresponding capacity. Nor need we be surprised at finding the same idea and the same person at one time assuming a masculine form and expression, and at another a feminine; or uniting both at once. The oldest conception of the Aphroditè of Cyprus, the conception of Cinyras himself, was both masculine and feminine in the same person: and even the Demeter of the Greeks, though always proposed as a feminine conception of its proper kind, appears to have been considered from the first to have been endued with a masculine power and capacity also. There was a Korè in both the Eleusinian and the Thesmophorian mysteries; and a Korè which stood in the relation of daughter to Demeter: and yet it does not appear that, according to the original form of the fable, incorporated in each of those institutions, this Korè had any father; or derived its being from any maternal or any paternal principle which was not represented by Demeter herself.

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* It is another singular coincidence that supposing the Lunæ sacrum in Aventino (of which Ovid, Fasti, iii. 883), attached to March 31 Roman, to have been instituted at this time also; it must have been supposed attached to the new moon: for March 31 Roman that year fell on April 26 and April 26 on the Luna 28°.

[x] Livy, i. 45. Strabo, iv. i.

[y] Minucius Felix, Octavius, xxi. 14. Cf. Fasti Catholici, iii. 181. note.

Again, it has been seen, from the testimonies produced above, that one of the titles of Janus among the Romans was Junonius; Janus Junonius: i. e. Janus who was Juno, or of the nature of Juno, also. The Roman Juno is commonly represented by the writers of later times as the same with the Hellenic Herè or Hera: but if by this name and title we are to understand the classical Heré, the sister of Zeus, and the daughter of Kronos and Rhea, and not simply the moon in contradistinction to the sun, this representation is undoubtedly mistaken. The Roman grammarians too derive this name of Juno in their own language *a juvando;* which is a mere imaginary explanation of it, though proposed by Varro[y] and by Cicero[z]. What the ancient Romans or the rest of the Italians their contemporaries must really have intended by this name can be collected only from acknowledged matters of fact; such as that of the consecration of the first day of every month among both to Juno: among the Romans, because from the time of Numa downwards the new moons were proclaimed on the Kalends of every month; among their neighbours, who still made use of the Nundinal calendar, because the new or the full moons fell on the first of the month. It is agreed that the most proper epithet of Juno among the Romans was Lucina, *Juno Lucina;* and that *Lucina* was derived from *Lux:* on which principle the most proper subject of such an epithet must have been the moon at the full. It is agreed too that Juno simply, or with the epithet of *Jugalis,* was the type of marriage; Juno Lucina of parturition: the former an idea taken from the conjunction or new moon, the latter one borrowed from the full. It is clear then that to call Janus Junonius was to call him in some sense or other the moon. And this is probably the true explanation of the fact handed down traditionally, that his temple was δωδεκάβωμος; garnished with twelve altars instead of one. The later writers interpret these twelve altars of the twelve months of the year, or of the calendar; one for each: considering Janus himself as simply the type of the year. But they were much more probably intended of the twelve moons; all sacred to Juno, and through Juno to Janus Junonius.

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[y] De Lingua Lat. iv. 20, 21.

[z] De Nat. Deor. ii. 26.

Dionysius of Halicarnassus has left it on record that when the surviving Horatius, after the death of the three Curiatii his cousins, and that of Horatia his sister, all by his own hand, underwent the ceremony of expiation, the method employed by the pontiffs for that purpose was first to sacrifice to Janus and Juno, and then to pass Horatius under the yoke. Κἀκεῖνοι βωμοὺς ἱδρυσάμενοι δύο, τὸν μὲν Ἥρας ᾗ λέλογχεν ἐπισκοπεῖν ἀδελφὰς, τὸν δ' ἕτερον ἐπιχωρίου θεοῦ τινος ἢ δαίμονος Ἰανοῦ λεγομένου κατὰ τὴν ἐπιχώριον γλῶτταν, ἐπωνύμου δε Κορατίων τῶν ἀναιρεθέντων ἀνεψιῶν ὑπὸ τοῦ ἀνδρός· καὶ θυσίας τινὰς ἐπ' αὐτοῖς ποιήσαντες, τοῖς τε ἄλλοις καθαρμοῖς ἐχρήσαντο καὶ τελευτῶντες ὑπήγαγον τὸν Ὁράτιον ὑπὸ ζυγόν[a]. This is the first allusion to Janus by name which occurs in Dionysius, though only in the reign of Tullus Hostilius: and that there was some foundation in fact for what he relates appears from Festus[b]. The piacular sacrifices first resorted to on this occasion for the sake of this member of the Horatian family became proper ever after to the *Gens Horatia*[c]; from which time we must infer that Janus also acquired his surname of Horatius and Curiatius[d]: but only as the Janus of that family. But why we may ask were the two objects of worship, concerned in the expiation, and on such an occasion, these two, Janus and Juno? The reason assigned by Dionysius is that Juno was interested in it because it was her office ἐπισκοπεῖν ἀδελφάς; and we may allow the force of that reason, because a sister had just been sacrificed and by a brother: Janus again because he was surnamed Curiatius, and the Curiatii were the cousins of Horatius the subject of the expiation itself. In this latter explanation the learned historian of Roman antiquity was no doubt mistaken. Janus was first called Curiatius in consequence of this ceremony itself. The true explanation of this whole proceeding is that Juno had suffered vicariously in what had just happened to Horatia, the sister, Janus in what had just befallen the Curiatii, the cousins, of the subject of the expiation; Juno as the tutelary goddess of sisters, Janus as the tutelary god of cousins or brothers. What then must have been the relation of Janus and Juno to each other? What but that of brother and sister too? If so, Janus must have been understood of the sun and Juno of the moon. And this conclusion is of great importance on the question of what they must always have been supposed to denote from the first. If they were recognized in this solemn manner as types of the sun and the moon, and through them of the fraternal and the sororial relation, so early in the reign of the successor of Numa; there cannot be any doubt that they must have been regarded in the same kind of relation (Janus as the sun, Juno as the moon,) long before*.

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[a] iii. 22. The latter part of the ceremony is mentioned by Livy, i. 26: and some other ceremonies, as used on the occasion, are alluded to generally by him, which were probably these described by Dionysius.

[b] xvii. 518. 7. Sororium Tigillum: .. consecratisque ibi aris Junoni Sororiæ et Jano Curiatio liberatus omni noxia sceleris est, auguriis adprobantibus. ex quo Sororium id Tigillum est appellatum. Cf. in Tigillum also: xviii. 569. 11. Cf. also Propertius, iii. ii. 7.

[c] Livy, i. 26.

[d] Cf. Lydus, supra, 346.

SECTION VI.—*General conclusion respecting the name and character of the Janus of Numa.*

The conclusion therefore to which we may come on this point, as the result of all our inquiries into it, is this; That, according to the original conception of such a character by Numa as his Janus, he must have been contemplated and proposed as the type of time of indefinite antiquity indeed, but not the same with eternity—of time which once had a beginning howsoever remote that might be: That Janus consequently was not eternal, and yet that he was older than any thing else which like himself had its existence in time;

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* It would not necessarily follow even from the above fact in the reign of Tullus Hostilius that the moon under the name of Juno was associated with his own Janus as the sun by Numa. The truth appears to be that Juno as the name of the moon was borrowed by the Romans fom the Etrurians: of whom the worship of Juno was characteristic. Cf. Appian, De Bell. Civ. v. 49. speaking of the people of Perusia B. C. 40: Διὸ καὶ τὴν Ἥραν ἔσεβον οἷα Τυρρηνοί: and she might be already known to them by that name in the reign of Tullus Hostilius. Cf. Dionys. Hal. i. 21.

he was older therefore than any of the rest of the gods, if none of these too had existed from all eternity: and he was as old as the origin of matter and form in conjunction; that is, as the present system and order of things. And possibly in Numa's apprehension his Janus might even be older than this system; and might himself have been the author of it: his Janus might have been the very power and principle *ab extra,* which some time or other called it into existence.

And Janus being the type of time he was also the type of duration; of which time itself is only a modification or form. And though in duration itself there is no distinction of parts, yet duration as comprehending time and notwithstanding as different from time may be regarded as divisible into two great segments; one of them anterior to time, and totally distinct from time, the other coexistent with time, simultaneous in its origin with time, and going on concurrently with it ever after: the former going back into an illimitable distance in the past, the latter going forwards into an equally interminable distance in the future; the former neither measured *de facto*, nor measurable, by time, the latter perpetually measurable by time. The proper station of such a conception as Numa's Janus was between these two great halves of eternity *a parte post* and *a parte ante*, respectively. He must be placed somewhere where he could take them both in at once; that is, on the confines of the two: on the point where duration as duration ended and duration as time began. And he must consequently be furnished with two faces, in order to contemplate both at once; both so much of eternal duration as had been anterior to his own existence, and so much of eternal duration as was destined to be posterior to it.

And as there was nothing to distinguish these two great divisions of eternity from each other, except that the latter was subjected to the measures of time, the former was independent of them; if Janus' proper relation after all was to the latter more than to the former, no representation of his figure could have been consistent with the truth of his character which did not exhibit some of the emblems of time: and the emblem which most naturally suggested itself was that of the year, the greatest of the natural measures of time, and the most complete, as including the other two. And it is very observable that, to judge from the mode in which he was made to express his relation to the year, even the year must have been considered a part of himself. It was not by holding any thing in either hand distinct from himself, but by a particular disposition of his fingers; that is, of a part of himself. And if he was himself the type of time, even the measures of time must have been regarded as parts of his essence.

It was only an enlargement of these ideas and of these relations to contemplate and to propose the Janus of Numa as the type of the sun and the moon also; and it is far from improbable that he might have been actually so proposed by Numa himself. But we are inclined to believe ourselves that his own Janus was proposed by Numa simply as the type of time; or of the measures of time in the abstract: with a capacity of either construction *pro re nata*, either that of the sun or that of the moon; between which as measures of time in the abstract no distinction was to be drawn. The contemporaries of Numa, or posterity, were very likely to make a personal distinction between his Janus in the sense of the sun, and his Janus in the sense of the moon; and while they retained the name of the former, to turn that of the latter into Jana: or to substitute the name of Juno for it. But Numa himself, in all probability, made no such distinction. His Janus was of either sex, according to circumstances: and yet the same person at bottom in each case.

SECTION VII.—*On the etymon of the name of Janus; and on that of the name of Januarius.*

It remains therefore to say something of the probable etymon and derivation of the name of Janus; which will also include that of the name of Januarius, the month so called in the Roman calendar: a point which we reserved on the former occasion[e] for a future opportunity.

Among the definitions of this name proposed above we need not hesitate to reject that of Festus, which derived it ἀπὸ τοῦ χαίνειν in Greek, in the sense of *hiare* in Latin. Nor is much more deference due to the opinion which derived it

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[e] Supra, Page 186. Diss. iii. ch. i. sect. iv.

ab eundo, and supposed it to be synonymous with *Eanus*; though this idea seems to have been proposed by Cicero. The world might be always in motion, and Janus might be the type of the world; yet that would not prove that his name must have been derived *ab eundo*, or must have been the same with Eanus. We know of no analogy in Latin according to which *eanus* could have been deduced *ab eundo*. Nor does it appear that this name of Eanus was ever applied to Janus in the Latin language by any one. It seems to have been proposed by Cicero merely as what the name should always have been, if it was actually derived *ab eundo*; not as what it ever was.

The most common explanation of the name is that which derives it from *Janua*; supposing the first month in the calendar of Numa to have taken its name from Janus, and Janus himself to have been so called from *Janua*, the common Roman term for a *door*. And these explanations occur so often, as our different testimonies shew, that it might be supposed *a priori* no doubt could be entertained concerning them. Yet neither of them is defensible on etymological principles; neither the derivation of Janus from *Janua*, nor that of Januarius from *Janus*. If Janus had taken his name from *Janua*; it must have been in the form of Januus: and if he had given his name to the month of January, it must have been in the form of Janarius*.

We have no doubt that when Numa added the month of January to the calendar, and placed it at the head of the months, he gave it a name regularly derived from Janua, and therefore in this form of Januarius; in order to intimate its place in the order of the year, and its relation to the rest of the calendar: viz. that this month was the door as it were of the civil year; that calendar time in the sense of annual set out from this month, and returned to this month, perpetually. Consequently those of the ancients, who explained this name to mean the same thing in Latin as θυραῖος in Greek, were more in the right than those who derived it from Janus. Januarius as we have observed could not have been regularly obtained from Janus. It must have been Janarius. Besides to derive the name of this month from Janus would restrict the relation of Janus himself to the calendar in general to this one month in particular. Janus was the type of time; and, if he had any relation to the calendar at all, it was to the calendar in the complex, and not to any one month of the calendar in particular: which, (as we have already observed,) is the reason assigned by the ancients themselves for that peculiarity of his temple, by virtue of which it was furnished with twelve altars instead of one.

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* It is evident that though Januarius, as applied to the month, is used as a substantive, it is in reality an adjective, derived from Janua, according to the same analogy as any other adjective, ending in *arius*, from its proper theme; quadrigarius from quadriga, rhedarius from rheda, aquarius from aqua, casarius from casa, and a multitude of others which might be cited. It makes no difference what is the gender or termination of the theme; the adjective is similarly derived in the shape of *arius*; armentarius from armentum, retiarius from rete, ovarius from ovum, piscarius from piscis, and so forth. Januarius then must certainly be from Janua. Janus would have required Janarius; like denus denarius, centenus centenarius, and the like.

This explanation therefore of the name of Janus being set aside; it remains to be seen whether any other can be substituted in its stead. And here the first question would seem to be Whether Janus was the original form of this term or not. Tertullian will throw some light on that point: Saturnus .... exceptus a Jano vel Jane ut Salii volunt[f]. The natural inference from this distinction is that, where the common mode of speaking of Janus had *Jano*, the Salian verses, the oldest compositions in the Latin language in which the name occurred, had *Jane*. The *casus rectus* in the Latin language of such an oblique case as *Jane* must have been either *Jan* or *Janis*. Now if the form which the word first assumed in the Latin language was *Janis*, it is not easy to see how it could have become *Janus*; for Janis would have been just as agreeable to the analogy of such terms in the Latin language as Panis, Canis, or the like. But if the word was derived to the Latin from any other quarter in the form of *Jan*; if it did not retain that form ever after it would assume that of Janus. The word Jan, as the expression of a masculine idea and of a masculine person, in the Latin language and in the *casus rectus*, would become Janus as matter of course. We infer then, from this allusion of Tertullian's to the use of *Jane* instead of *Jano* in the Salian verses, that the original form of the word in the nominative case was *Jan.*

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[f] Opera, v. 32. Apologeticus, 10. Cf. 189. Ad Nationes, ii. 12.

Now as the vowel *a* in this word Janus appears to have been naturally long; if its original form in the Latin was Jan, and it was derived to the Latin from the Greek, the vowel *a* in this Latin word Jan must have been the representative of the vowel η in the Greek; or of the long vowel α equivalent to it. Let us then take into consideration the fact that, in the derivation of words from the Greek to the Latin beginning with Z, the Z is changed into J; as in jugum from ζυγὸν, and, (what is still more to the point in this instance,) as in Juppiter from Ζεὺς πατήρ. It is manifest then that, if we had to turn such a Latin word as *Jan* into its equivalent form in Greek, it must be by reading it ZAN in the Greek character, instead of JAN in the Latin. Now ZAN in the Greek, it is agreed, is the Doric form of ZHN; and ZHN in like manner and not ZEΥΣ is the proper form of the name of Jupiter in that language. It is the *casus rectus* from which the oblique cases of ZEΥΣ itself, ZHNOΣ ZHNI and the rest, must have been derived.

Lactantius tells us[g] there was a sepulchre extant in Crete with an inscription upon it of ZAN KPONOΥ: Inque sepulcro ejus est inscriptum antiquis litteris Græcis ZAN KPONOΥ; id est Latine, JVPITER SATVRNI. It is certain too that whether truly or falsely the Cretans did profess to have such a sepulchre among them, and did pretend to point it out.

> Κρῆτες ἀεὶ ψευσταί· καὶ γὰρ τάφον ὦ ἄνα σεῖο
> Κρῆτες ἐτεκτήναντο[h].

We refer to this alleged inscription, and upon such a monument, merely by way of testimony to the fact that the oldest form of the name of Jupiter among the Greeks, (older even than ZHN in the Ionic dialect,) its proper form in Crete the birthplace of Jupiter himself, was ZAN. It is therefore the most probable explanation of the old and original form of the Roman Jan that it was nothing more nor less at first than the Greek Ζάν: though in the course of time, and in conformity to the rule and analogy of the modification of such terms in the Latin, it might, or rather must, become Janus. The Greek lexicographers recognize also a secondary form of ZAN, in the shape of ZANΩ; which if genuine would probably furnish the best explanation of the origin of the name of the Latin Juno: as thus both in herself, and according to the meaning of her name, a kind of female Jupiter; the same idea as Jupiter in every respect but that of sex.

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[g] ii. 11. Cf. Arnobius, iv. 135.

[h] Callimachus, Hymnus ad Jovem, ver. 8. Pomponius Mela, ii. 7. p. 60: Solinus, xi. 7: Servius, ad Æn. vii. 180.

It would thus appear that as the nature and attributes of the Janus of Numa were those of time; so his name also was in character with his nature: for even this name of ZAN or ZHN among the Greeks, applied to the Supreme Being, when traced up to its origin must be ultimately derivable from the word for life or for living in the Greek language, τὸ ζῆν or ζᾷν; and must have been more or less equivalent to ὁ ζῶν. And Janus as born with time, and from the moment of his birth as everlasting as time, must have been the type of eternity and of life or existence without end *a parte ante* at least. This view of the meaning implied in the name would be as applicable to the Hellenic Ζὰν, as to the Italian Jan: and very probably it was actually taken by those who first imposed that name on the former. The question is not Which of these names was the older, the Hellenic ZAN or the Roman JAN; but What each of them denoted? and What there was in the names themselves, to make one of them as proper for Jupiter as the other for Janus? It would not detract from the propriety of this designation for the Roman conception of Numa, and in its proper order of time, that the former was some centuries older than Numa; and was given to Jupiter by Minos, long before the Janus of Numa came into existence. The superior antiquity of the Greek name accounts for its having passed into Italy before the time of Numa; and so having become known to him. Its own fitness was competent to recommend it to him, as the most appropriate which could be selected for his own Janus.

SECTION VIII.—*On the Italian fable of Saturnus and Janus; and on its relation to the Hellenic fable of Kronos and Zeus.*

And this naturally leads us to observe that, if the testimonies produced above, which speak of the coming of Saturn into Italy, could be depended upon as genuine expressions of an ancient Italian tradition on those points, they would be demonstrative that the Grecian fable of Saturn (or Kronos) and Jupiter must have passed into Italy long before the time of Numa. But when they associate Janus also with this fable, and make him too the contemporary of Saturn, it is manifest that they give the fable a form in which it could not possibly have been known to Numa, nor have been recognized by him; at least if the conclusion at which we have just arrived, concerning the derivation of the name of his Janus itself, is true. For what would be implied in the contrary supposition, that the Janus of Numa was as old as Saturn, and was reigning in Italy when Saturn himself came there, and was known by Numa to have been so; yet had that name given him by Numa notwithstanding? What but that Saturn, expelled from Olympus or from Crete by ZAN, was received in Italy by JAN? that is, by ZAN also: and found an asylum with ZAN, in the person and under the name of JAN, from the hostility and persecution of ZAN, in the person and under the name of ΖΕΥΣ? Such an inconsistency as that could never have characterized the fable as known to or as recognized by Numa. Whatsoever then we may think of the antiquity of the fable of Saturn in Italy; the part ascribed in it to Janus also must be condemned as an addition of later times.

It is very observable that the parties concerned in the fable in its Hellenic form are *Κρόνος* and *Ζεύς*; those in the Italian are Saturnus and JAN. The name of Kronos does not occur in Italian mythology. And yet there can be no reasonable doubt that in this particular fable the Hellenic Kronos and the Italian Saturnus must have been intended of the same person. The only difference is that the Italian version of the fable takes up the Grecian; and that the same story which begins in Crete is continued in Italy: but it is the history of the same person in both. The Hellenic Kronos is expelled from Crete only to reappear in Italy.

Now this distinction is something remarkable; that the name of Kronos should be unknown to the Italian fable, and yet that the person and fortunes of Kronos should be clearly reflected in those of Saturnus. There is no ambiguity about the Hellenic name of Κρόνος. It is evidently the same as Χρόνος; and could have been given to the person who bore it only as the type of time. But there is the greatest uncertainty with respect to the Latin Saturnus; whence it was derived, or what it was intended to denote. To derive it *ab satu* with Varro[i], because Saturn was the son of Uranus the beginning of all things; or from the eternity of time with Cicero[k], *quod saturetur annis;* is only to expose our ignorance while we are affecting to know something. Saturnus and Ops were no doubt ancient names and ideas in Italy, like Οὐρανὸς and Γαῖα, Κρόνος or ῾Ρεία, among the Greeks; and very possibly, *mutatis mutandis,* they meant the same things too: but notwithstanding that it is much easier to say what each of those names must have denoted, than what on grammatical principles must have been the meaning of the name itself; especially that of the former*.

It is however a very singular coincidence that, whether these ideas and names passed into Italy from any other quarter, or were indigenous to Italy, in some sense or other, from the first, or not, the chronology, which enters into this amalgamation of ancient Italian mythology with ancient Hellenic, turns out upon examination to be wonderfully in accordance with the truth. The Italian Saturnus was not of indefinite antiquity in Italy; nor was he ever connected with any quarter of ancient Italy but Latium: which derived its name, according to these traditions, from the fact of his having lived in concealment there. Now Latinus was reigning in Latium when Æneas arrived from Troy; and Latinus, according to these Italian traditions, was lineally descended from Saturnus. Latinus was the son of Faunus; Faunus was the son of Picus; and Picus was the son of Saturnus: begotten and born of Saturnus after his coming into Latium. How long then must that have been before the arrival of Æneas? Latinus at that time was already advanced in years; and yet he was only the grandson of Picus, and the great grandson of Saturnus. It is manifest therefore that, if we went back 80 or 90 years from the time of the arrival of Æneas in Italy, we should not be far from the time of the birth of Picus, after the coming of Saturnus also*. And if we may suppose that the date of the arrival of Æneas, according to Virgil and to Roman tradition, was seven years after the capture of Troy, (though Dionysius makes it only three or four,) viz. B. C. 1175 or 1174; 85 years from B. C. 1175 would bring us to B. C. 1260 as the date of the birth of Picus. Now that date would take us to the very first origin of the fable of Kronos and Zeus among the Greeks; which, (as we hope to shew more at large hereafter,) was B. C. 1261, the date of the first and oldest octaëteric correction of the primitive calendar among them.

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* Without going any further into this question, we are content to declare our opinion that the name of Saturnus in all probability came into Italy from the North. There was an ancient object of worship among the nations of the North, called Sater or Seater—to whom the seventh-day in their hebdomadal cycle was sacred, as it was to Κρόνος in the Egyptian. The first syllable in that word must have been long even in the form of Sater. This word in Latin would necessarily become Sāternus, or Sāturnus. In our opinion this northern Sater is the real original of the Italian Saturnus; both of the name and of the idea denoted thereby; of the idea at least, as represented by the Italian fable relating to the *times* of Saturn.

[i] De Lingua Lat. iv. 19. Cf. Festus, xvii. 484. 10. Saturno.

[k] De Natura Deor. ii. 25: iii. 24: Lactantius, i. 12.

It must be confessed that this is a very curious coinci-

[*] Auctor, De Origine Urbis Romæ: i. 8. l. 7. Post Picum regnavit in Italia Faunus, quem a fando dictum volunt, quod is solet futura præcinere versibus quos Saturnios dicimus: quod genus metri in vaticinatione Saturniæ primum proditum est. ... ejus rei Ennius testis est, cum ait,

Versibu' quos olim Fauni vatesque canebant.

l. 15: Igitur regnante Fauno ante annos circiter sexaginta quam Æneas in Italiam deferretur Evander Arcas .. venit—P. 11. l. 25: Post Faunum, Latino ejus filio in Italia regnante, Æneas, &c.

Cf. Festus, xiv. 401. 13 Picus: Tertullian, v. 31, 32: Apologeticus adv. Gentes, 10: 188–190. Ad Nationes, ii. 12: Minucius Felix, xxii. 8, 9: Arnobius, ii. 94: iii. 117. 119: Lactantius, i. 13, 14. 22, 23: Fulgentius, Mytholog. i. ii. Saturnus.

dence; that the Italian fable of Saturnus should thus without any loss of time have taken up and continued the Cretan one of Kronos: and yet the premises from which we have deduced it, (if the traditions by which they are furnished may be only received as actual ones of their kind,) do not admit of being called in question. We cannot make out more than three generations between the coming of Saturnus into Italy and the coming of Æneas. If this latter is to be dated B. C. 1175, the former must be dated about B. C. 1261 or 1260: and if so, the inference from that fact is inevitable; viz. that Saturnus dispossessed by Zeus of his hereditary jurisdiction and hereditary honours in Crete, and in this very year too, B. C. 1261, must have found an asylum in Latium, and a new kingdom, and a fresh recognition of his proper divinity, in this very year also, B. C. 1261.

SECTION IX.—*On the Janus and Kamase of Italian Mythology; and on their relation to each other; and the meaning of each in that relation.*

It remains in the last place to notice the singular addition to the mythological history of Janus, which appears in some of the preceding accounts, and is to the following effect; viz. That Janus was *αὐτόχθων*, indigena, or terræ filius; That he had a sister, *αὐτόχθων* or terrigena as well as himself: That the name of this sister was Kamise or rather Kamase; that Janus and Kamase were not only brother and sister, but also husband and wife: that they had two children, but only two, one of them a son the other a daughter; and that the name of the son was Αἴθηξ, that of the daughter Ὀλιστήνη. The authorities quoted for these accounts appear to have been exclusively Grecian[l]; Damophilus mentioned by Lydus, Protarchus of Tralles, followed by Hyginus, Dineas of Corcyra, referred to by Athenæus. It is not therefore surprising that Italian tradition and these accounts should not agree together. According to Italian tradition also, if it is rightly represented by Ovid[m], Janus was married to Venilia, not to Kamase; and Janus had a daughter by her, called Canens not Olistene: the same who is supposed also to have been married to Picus the son of Saturnus. These representations are consistent; if Janus was really a contemporary of Saturnus, and reigning in Italy when he came there. Italian fable too represented Picus, (the son of Saturnus yet married to the daughter of Janus,) as afterwards turned into the bird so called in Latin, (the wood-pecker[n],) by Circe the daughter of the sun; and that too would be possible according to the fable: for Circe the sister of Pasiphaë (the wife of Minos, the first author of the fable of Kronos and Zeus) must have been a contemporary of Saturnus, and therefore of Picus his son.

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[l] Cf. Plut., Quæstiones Romanæ, xxi.

[m] Metam. xiv. 333. According to Arnobius (iii. 117) Janus was married to Juturna, daughter of Vulturnus; and was the father of a son by her called Fontus.

This particular representation of the relation of Janus and Kamase to one another, that they were brother and sister yet husband and wife, it is most reasonable to suppose, must have been ultimately borrowed from the Egyptian one of that of Osiris and Isis, which was exactly to the same effect. On this principle, Janus in such a representation must have been contemplated as the antitype of Osiris, and Kamase as that of Isis; and that too without any prejudice to the superior antiquity of such ideas and such names in their proper Egyptian form. For the Osiris and the Isis of the Egyptians were as old as B. C. 1350; the Janus and Kamase of this Italian fable could not have been older than B. C. 1260 or 1261: i. e. they must have been 90 years younger than B. C. 1560.

If however the first idea of the Italian Janus and Kamase in this relation to each other was borrowed from the Egyptian one of Osiris and Isis; it is only a natural inference from that fact that the very same things and the very same ideas were intended by the two former names as by the two latter: viz. the two cosmogonic principles, the male and the female, from whose union and cooperation every thing else *in rerum natura* derived its existence. Now as this sister and wife of Janus in the above representations was styled Kamase, so was the abode of Janus, after his union with her, styled Kamasene (regio); evidently so called from her. If there was a regio Kamasene, in any quarter of the ancient world, there must have been a people or nation of Kamaseni, which took its name from it. Accordingly, we meet with a gloss in Suidas, *Καμασσηνοὶ, ἐθνικόν.*

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[n] Festus, xiv. 345. 10 Picum. Ovid, Metam. xiv. 320–396. Plutarch, Quæstiones Romanæ, xxi.

Who then or what were these Kamaseni, who, we may take it for granted, were never known or heard of except in this tradition? First, it appears from Athenæus[o], that, according to Empedocles, the general name for fish, the productions and representatives of the element of water, was *καμασῆνες. Οὐ λανθάνει δέ με καὶ ὅτι κοινῶς πάντες οἱ ἰχθύες καμασῆνες ὑπὸ Ἐμπεδοκλέους ἐλέχθησαν τοῦ φυσικοῦ οὕτως·*

> *Πῶς καὶ δένδρεα μακρὰ καὶ εἰνάλιοι καμασῆνες.*

The same word and in the same sense occurred in another fragment of Empedocles, quoted by Plutarch[p]:

> *Φῦλον ἄμουσον ἄγουσα πολυσπερέων καμασηνῶν—*

and there is a gloss in Hesychius, *Καμασῖνες· ἰχθύες*—where his editors read *καμασῆνες* instead of *καμασῖνες* also.

Secondly, a gloss occurs in Hesychius too, *Καμασός· βάραθρος*: from which it appears that *καμασὸς* denoted a *gulf*, a *depth*; and if so, it must have been capable of denoting the sea or the ocean, the watery element in general. Now *καμασῆνες* might obviously be derived from *καμασός*; and its first and proper meaning, as so derivable, would evidently be the productions and inhabitants of the *καμασὸς*, of the gulf or depth, of the ocean as such, or the watery element in general; i. e. in one word, Fish—every thing that swims in the sea.

But thirdly, since it appears from Hesychius that the first and proper sense even of *καμασὸς* was a gulf or abyss; it must have been first and properly applicable to the watery element in the form of chaos: in which the elements of things coexisted indeed but in a state of dissolution and fluidity; as if every thing had been resolved into one element only, that of water. Kamase, the sister of Janus, before her union with him, was the type of this state; and both together, after their union, were the types of the same things reduced to order and harmony.

We must infer then that in this representation of Janus and Kamase, and of their peculiar relation to each other, nothing was ultimately intended but the existing system of things, as consisting of matter and form. Kamase was matter, Janus was form. Both had the same origin, and at the same time, out of the preexisting state of chaos; of decomposition and fluidity: and therefore they were necessarily related as brother and sister. But the fruit of their union being the material and sensible universe, the existing varieties and forms of things which actually sprang out of chaos; they must be related also as husband and wife.

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[o] viii. 10.

[p] Symposiaca, v. Problema x. cap. 4.

Fourthly, it appears that they had two children, but only two; one of them a son, the other a daughter: the former named Αἴθηξ the latter Ὀλιστήνη. These names are certainly obscure; but the latter differs only slightly from Ὀλισθήνη, and probably should be Ὀλισθήνη: and Ὀλισθήνη in Greek would properly denote *lubrica, instabilis, fluida*; and therefore it might be a very proper name for the sea in opposition to the *terra firma* or continent: like ἡ ὑγρὰ as opposed to ἡ ξηρά. And if that was the meaning of Ὀλισθήνη, it may be supposed that the meaning of Αἴθηξ was something analogous to it, but opposed to it; some idea for the solid part of the material universe in contradistinction to the liquid. The explanation of this part of the fable therefore most probably is that the effect of the union of Matter and Form in the persons of Janus and Kamase respectively was the production of the terraqueous globe, divisible every where only into the main land, and the sea; the former the son, the latter the daughter, of this union: the son called by some name which denoted firmness and stability, the daughter by one which implied instability and fluidity.

SECTION X.—*On the Italian Pales. Testimonies.*

i. Pales dicebatur dea pastorum, cujus festa Palilia dicebantur; vel ut alii volunt dicta Parilia, quoniam pro partu pecoris eidem sacra fiebant[q]—Armentorum et pecorum gregibus Pales præsunt Inuusque custodes[r]—Et in hoc certamine victoriæ pretium templum sibi pastoria Pales ultro poposcit[s].

ii. Postquam te fata tulerunt
Ipsa Pales agros atque ipse reliquit Apollo[t].

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[q] Festus, xiv. 322. 4. Pales.

[r] Arnobius, iii. 113.

[s] Florus, i. xx. De Bello Sallentino: B. C. 267–266.

[t] Virgil, Eclogæ, v. 34.

Servius, (Pales) Dea pabulorum: dea pastoralis.

Te quoque magna Pales! et te memorande canemus
Pastor ab Amphryso[u].

Servius: Invocat deam pabuli dicturus de animalibus: sicut de frumentis dicturus et vitibus Cererem invocavit et Liberum .... Pales autem ut diximus dea est pabuli; quam alii Vestam alii Matrem Deûm volunt.

Nunc veneranda Pales! magno nunc ore sonandum[w].

Et nemus et fecunda Pales[x]—

iii. Hic ego pastoremque meum lustrare quotannis
Et placidam soleo spargere lacte Palem[y].

Romulus æternæ nondum formaverat urbis
Mœnia consorti non habitanda Remo.
Sed tunc pascebant herbosa palatia vaccæ,
Et stabant humiles in Jovis arce casæ.
Lacte madens illic suberat Pan ilicis umbræ
Et facta agresti lignea falce Pales[z].

iv. Quæ precor eveniant, et nos faciamus ad annum
Pastorum dominæ grandia liba Pali[a].

Et te magna Pales[b]!

Aut fecunda Pales aut pastoralis Apollo[c].

SECTION XI.—*Remarks on the preceding Testimonies. Pales represented in them all as a feminine principle, the Goddess of animal life.*

It must be inferred from the preceding allusions that the popular conception of Pales among the Romans was that of a female principle, of a goddess as such; only with a special relation to rural and pastoral life, and a special connection with the country and its productions. Among the Grecian divinities, known to the Romans, she seemed to bear the closest resemblance to Demeter or Ceres: among those which had come to their knowledge from the east, to the Phrygian Cybele, the Mater Phrygia or Mater Idæa. And yet there was a difference between the Grecian Demeter and the Roman Pales; viz. that, while the former had a distinct relation to vegetable nature, she had none whatsoever to animal; the latter had a relation to vegetable nature also, but only in and through her relation to animal. She was properly the goddess of flocks and herds. Her most appropriate and characteristic title was *Fecunda*, the fruitful; but in this particular sense of the propagation and multiplication of animal life. If she was also the goddess of pastures, it was because animal nature could not subsist, much less be propagated and multiplied, without the assistance of vegetable; flocks and herds must live upon pastures. Hence it was that proposing in his third Georgic to treat exclusively of the breeding of cattle, Virgil, as Servius observes, began with invoking Pales.

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[u] Virgil, Georgica, iii. 1.
[w] Ibid. 294.
[x] Virgil, Culex, 76.
[y] Tibullus, i. i. 35.
[z] Ibid. ii. v. 23.
[a] Ovid, Fasti, iv. 775.
[b] Columella, x. 4.
[c] Calpurnius, Eclogæ, vii. 22.

It is manifest therefore that, if the Romans had formed such a conception as this of the impersonation of animal and sensible nature in the abstract, that must have been what was intended by the idea and name and person of their Pales: and it is almost superfluous to observe that such a conception, if clothed with the attributes of personality, and subjected to the distinction of sex like any other personal conception, must have been proposed as a goddess; as a feminine principle of its proper kind, not as a masculine. Nature, represented as a person, (ἡ φύσις in the abstract,) and especially animal and sensible nature, the principle of life and production in the animal world, seems scarcely to have occurred to the human imagination, at any time or any where, except as a feminine principle; as a *Mother*, not as a *Father*, of its proper family.

SECTION XII.—*On the testimonies which recognize a masculine Pales.*

It is therefore something remarkable that besides the testimonies produced above, which set forth Pales as a feminine principle, there are others which recognize it as a masculine one. Servius, in continuation of his commentary on Georg. iii. 1, observes, Hanc Virgilius genere fœminino appellat, alii, inter quos Varro, masculino genere, ut hic Pales. Arnobius, quoting from Cæsius, enumerates a masculine Pales among the Dii Penates: Cæsius . . . . Fortunam arbitratur et Cererem, Genium Jovialem, ac Palem, sed non illam feminam quam vulgaritas accipit, sed masculini nescio quem generis, ministrum Jovis ac villicum[d]. Martianus Capella too recognizes a masculine Pales, whom he calls the son of Jupiter, and the second, (attendant,) of Bacchus: Vos quoque Jovis filii Pales et Favor, cum Celeritate solis filia, ex sexta (regione cœli) poscimini[e]—Sed etiam Liber ac Secundanus * Pales vocatur ex septima[e].

Among these testimonies we are disposed to attach most importance to that of Varro. The Pales of which Servius is speaking in this instance, the Pales apostrophized by Virgil at the beginning of his third Georgic, is clearly the principle of animal life; a principle which every one else, according to Servius, recognized as feminine: Varro alone, it seems, as masculine. It is therefore something remarkable that so well-informed and learned a man as Varro should have been of opinion that the well-known rustic divinity, to whom the popular belief attributed the propagation and increase, the conservation and continuance of their flocks and herds, was after all a god of some kind, not a goddess; HIC Pales, not HÆC Pales †.

The lexicon of Hesychius, (which in its present form is only an abridgment of the much more elaborate and circumstantial work of Diogenianus,) has two glosses under the head of Παλίλια; one, Παλίλια[f]· *ἀγών· οἱ μὲν τῷ Πάλητι, ἔνιοι δὲ τῷ Πανί*: the other, Παλίλια[g]· *ἀγών· οἱ δὲ τὸ παλεῖν ἔνιοι δὲ* τὸ Πᾶν: the latter of which is evidently to be corrected by the former, and is in all probability only the former repeated, and out of its place. If the Palilia, here alluded to, are the Roman Palilia, then it must be inferred from this gloss that, while they were celebrated in honour of Pales, Pales, in the apprehension of the author of the gloss, was a masculine impersonation not a feminine one; and more like the Pan of the Greeks, (notoriously a masculine principle,) than any thing else among them.

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* Secundanus indeed may have here the sense of a Pales of the second order; yet still a masculine one of its kind.

† We are not aware whether the word Pales occurs in any of the Fragments of Varro, except this one apud Gellium, xiii. 22.

Ted Anna Perenna, Panda, te Lato, Pales.

And here it stands without any epithet to shew its gender. De Lingua Lat. v. 55. he has Palilia dicta a Pale, quod et feriæ *ei deæ* fiunt. And this recognizes Pales as a goddess. He might speak of her as a goddess, in conformity to the popular belief; and yet as a god, in accordance with his own more deliberate opinions.

[d] iii. 123. [e] Cap. i. p. 16. [f] ii. 836. [g] Ibid. 847.

It appears to us then on the strength of these two opinions, (one that of the most learned of the antiquarians, the other that of the most learned of the grammarians, of former times,) that whatsoever might be meant by the person of Pales, there was good reason for supposing that the name was more properly masculine than feminine. It remains therefore for us to explain, if possible, how it might have happened that a masculine name should have come to be thus associated among the ancient Italians with a feminine impersonation.

SECTION XIII.—*On the derivation of the Latin Pales from the Greek* Φάλης: *and on the nature of the idea ultimately implied in the name.*

It appears from Hesychius that the term Πάλης, from which he derived Παλίλια, was inflected Πάλης Πάλητος; though the Roman substantive Pales is always declined Pales Palis. On the other hand Palilia, it is agreed, as the name of the feast of Pales, was derived from Pales: and in Palilia the second syllable was long.

Hoc argumenti flamma Palilis habet[h].

The noun substantive Pales therefore in Greek characters would properly be Πάλης, or Παλής.

Now there is no difference, except an accidental one, between Παλὴς or Παλῆς in Greek and Φάλης or Φαλῆς; and it is agreed that in Greek Φάλης or Φαλῆς is absolutely the same with Φαλλὸς, and is probably the most ancient form of that word itself in the Greek: Φάλης being the Doric, Φαλῆς the Ionic, form of Φαλλός. Both these increase Φάλης Φάλητος and Φαλῆς Φαλῆτος, like the Πάλης Πάλητος of Hesychius. It is agreed too that among the Greeks Φάλης was also the name of a person, a stated attendant on the Greek Dionysos; no doubt because he was in reality the impersonation of the Phallus: an emblem first associated among the Greeks with the mysteries of Dionysos. And the Liber Pater of the Romans or the Italians being the representative of the same idea among them as Dionysos among the Greeks; it appears from Martianus Capella that the Latin Pales also was a stated attendant on the Latin Liber. And in what capacity could that be, except as bearing the name of the Phallus, and as representing the Phallus, also?

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[h] Ovid, Fasti, iv. 798. Cf. supra, p. 289. Plutarch writes the word in Greek Παλήλια.

Laying these different coincidences together we can come to only one conclusion on this point; viz. that the Italian or Roman name of Pales, when traced up to its origin, cannot have differed from the Greek term Φάλης: and that consequently, from the reason of the thing and on strictly etymological principles, it must have been properly masculine. This was probably known to Varro and to Diogenianus; and therefore the reason why they made it masculine. And though it follows from this fact that the ultimate origin of the Roman or the Italian Pales must have been the Greek Φάλης or Φαλλός; it would by no means follow from it also that, when the ancient Italians borrowed the name of the Phallus from the Greeks for their own Pales, they must have borrowed the idea of it also.

The Isia of the Egyptians having first been imagined in Egypt in B. C. 1560 passed to the Greeks only 44 years afterwards; both in the form of the Eleusinia instituted by Eumolpus, and in that of the Thesmophoria instituted by Triptolemus. The proper Egyptian conception of Isis too passed to them at the same time; and found its expression in each of those institutions under a common character: that of the Hellenic Demeter. But it is very observable that the correlative conception, which it might have been supposed *a priori* must have been inseparably united to that of the Egyptian Isis, viz. the Egyptian Osiris, did not pass to the Greeks; or that, if it did, it was materially modified and altered by them before they adopted it. There was no person in either of those institutions which answered to the

Egyptian Osiris, but the Koré; and the Korè in both of them was not the husband but the daughter of Demeter, the Grecian Isis. We can imagine no reason for this distinction except one; viz. That the Grecian sense of purity and delicacy, at that early period when so much of primitive innocence and simplicity was still left among them, revolted from the naked and undisguised expression of the relation of Osiris and Isis to animal as well as to vegetable life: and therefore they adopted only a modified form of that expression, the least offensive to decency of all. Their Demeter and their Korè were the Isis and Osiris of the Egyptians in relation to nothing but the fruits of the ground; and no longer as wife and husband, but as mother and daughter. There was consequently nothing, either in the Eleusinian or in the Thesmophorian mysteries at first, which implied the least relation to animal life; and in particular no such emblem as the phallus. And this in fact was the most characteristic distinction between the Egyptian and the Grecian institution of the same kind; viz. that, while the phallus was the most prominent object in the former, it was of all that which was most carefully excluded from the latter at first: and if it ever came to make a part of the rites of Demeter among the Greeks, (as it certainly did at last,) it was long after the time of their first and proper authors.

Now it is just as conceivable that the same sense of propriety, which actuated the Greeks to make a distinction like this between the meaning and ceremonies of their own Eleusinia or of their own Thesmophoria and those of the Egyptian Isia, might influence the ancient Italians in the choice of a name for the idea which they had formed of their Phales. They might borrow the name of the Phallus, in the shape of Phales, or Pales, and yet totally reject the thing denoted by it. It is conceivable therefore that the name of the Phallus might have come to them from the Greeks, and yet that it might be associated among them from the first not with its proper meaning, or its outward expression, but simply with the idea of the power or principle in the abstract, to which the production and continuance of animal life was due; in one word of Nature, as the universal parent or Alma Mater. And in this case, though the name in itself and in its original application might be masculine; yet it must become feminine among them. It would be the proper denomination of a feminine and not of a masculine conception, as used by them; and therefore feminine itself perpetually.

As to the time when this name and in this sense might possibly have passed into Italy, we are left to conjecture. All that we shall say in reference to this point is that neither the name nor the idea of the Phallus of antiquity could have been known of in Italy before they were known in Greece; and the first person to make them known in Greece, we are told by Herodotus, was Melampus: very little later, (as we may possibly shew on a future opportunity,) than the time when Saturn, according to the Italic tradition, was still reigning in Italy, and the age of innocence and purity was still continuing there; during which period no such abomination as the recognition and worship of the Phallus could yet be supposed admissible in that country.

It is certainly true notwithstanding that, as in Greece so also in Italy, the principle of impurity typified by the Phallus did ultimately obtain admission in its grossest and most offensive form: in proof of which fact it is sufficient at present to quote the testimony of Varro, from Augustin De Civitate. In Italiæ compitis quædam dicit sacra Liberi celebrata cum tanta licentia turpitudinis ut in ejus honorem pudenda virilia colerentur; non saltem aliquantum verecundiæ secreto sed in propatulo exsultante nequitia. nam hoc turpe membrum per Liberi dies festos cum honore magno plostellis impositum prius rure in compitis et usque in urbem postea invectabatur. in oppido autem Lavinio uni Libero totus mensis tribuebatur, cujus diebus omnes verbis flagitiosissimis uterentur; donec illud membrum per forum transvectum esset, atque in loco suo quiesceret: cui membro inhonesto matremfamilias honestissimam palam coronam necesse erat imponere[i].

It is very important to take notice here first that, according to the prescriptive rule of this ceremony, the Phallus was taken in procession up and down through the villages, i. e. the country, before it was brought into the towns. We may probably infer from this fact that the use of this emblem was first introduced in the country; and grew up there by degrees, in connection with the rustic festival of the Palilia. Secondly, that at Lavinium in particular the stated time of this ceremony was the Liberalia, the Dionysia of the Romans or of the Italians; to which at Lavinium in particular a whole month was devoted. The Roman Liberalia, properly so called, in the Julian calendar coincided with the middle of March. We shall probably see reason hereafter to conclude that the calendar of Lavinium did not differ materially from the Roman; on which principle, their Liberalia, (a festival no doubt of the same season of the year in general, and celebrated for a whole month,) must have coincided with March or April also: and therefore with the stated time of the Roman Palilia.

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[i] De Civitate, vii. 21. Varro, Fragmenta, 225.

SECTION XIV.—*General conclusion of the site of the Palilia in the natural year; and of the connection of their proper date with the Natale Mundi.*

Testimony, as we saw[k], appeared to leave it doubtful whether such a festivity as the Roman Palilia was older than the foundation of Rome. Dionysius of Halicarnassus seemed to depose in the negative, Plutarch, on the contrary, in the affirmative, upon that point. And after what has just been shewn of the probable etymon and meaning of the name of Pales itself, and of the attachment of the rites of Bacchus in Italy to the spring, and of the association of the Phallus with those rites, beginning in the country, and ultimately passing into the towns; we may safely conclude that Plutarch had good foundation for his assertion: that there was always *βοτηρική τις ἑορτὴ* in honour of the goddess of nature, and of the annual revival of her power and influence in the spring; celebrated in Italy, and especially among the rustic population of Italy, at that season of the year: a ceremony of that kind too not yet contaminated by any such foul and unmixed turpitude as the naked and undisguised recognition of the Phallus.

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[k] Supra, P. 102. Diss. ii. ch. ii. sect. i.

Nor is there any good reason, so far as we can perceive, why we should not suppose that, if there was a stated festivity of this kind in honour of the goddess of nature, it might have a stated date; and that date in Italy, and among the first inhabitants of Italy, might be even the Natale Mundi itself. We see no reason why the same tradition of the origin of things, and of its proper date, should not have been perpetuated in Italy, as in Egypt, or China, or India, or Persia, or Phrygia, or Arabia; or in any other part of the ancient world[l]. The fact at least is certain, (and it is a very significant one,) that the decursus of Etrurian sæcula, B. C. 860, was attached to March 25; and that the day of the foundation of Rome, at the end of the first of those sæcula, was attached to April 24: the former the first, the latter the last, day of that month which B. C. 860 represented the true Natalitial month of mundane time; and the latter even the Natale Mundi itself. It is difficult not to conclude that this day must have been fixed upon by Romulus on purpose. What was more naturally to be expected *a priori* than that he would have founded the city on the first day of the year, Feb. 4? the first day of his own calendar too. What but a special reason of some kind or other could have made him fix upon April 24 in its stead[m]?

With respect to the Roman Palilia, properly so called and attached to the xi Kal. Maias, as we argued before[n], they could have no existence before the correction of the calendar by Numa, when they were first fixed to that date. But even the Palilia of Numa, to take up and continue an older festival under the same name, must have been of the same kind, and attached to the same season of the year in general. Let us therefore consider the limits assigned to the Palilia in the calendar of Numa. Their nominal date was the 20th of April Roman perpetually. The earliest date of the Aprilis of Numa was April 6, the latest was May 6. The earliest date of his Palilia consequently was April 25, the latest May 25; just 30 days asunder. Between these it must be comprehended in his calendar perpetually. Now these are remarkable terms. They are exactly the limits of the first month of Mundane time itself; of the Natalitial month of natural and civil annual time: of the Krion in short of the Mazzaroth of the beginning[o]. We cannot suppose that such a coincidence was purely the effect of chance: but if it was the effect of design, what can be inferred from it, except that Numa intended his Palilia to be a perpetual memorial of the origin of things, and purposely fixed their limits accordingly?

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[l] Cf. our Fasti Catholici, Diss. ix. ch. iv. vol. ii. 67 sqq.

[m] Ibid. iii. 317, 318: Diss. xv. ch. iv. sect. x: iii. 253: Diss. xv. ch. iv. sect. iii.

[n] Supra, P. 104.

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[o] Cf. our Fasti Catholici, iii. 290–299. Diss. xv. ch. iv. sect. vii.: 305. ibid. sect. viii.

DISSERTATION IV.

On the Decemviral Correction of the Calendar of Numa.

CHAPTER I.

SECTION I.—*Seat of Februarius in the Roman Calendar, from the date of the Julian correction upwards.*

THE Julian correction of the Roman Calendar made no change in the order of the months; only in the length of some of them. Consequently the order of the months in that calendar after the correction is a decisive criterion of the same thing just before it. According to this order, the month of Februarius was the second; the month which immediately followed Januarius and immediately preceded Martius. We must conclude therefore that Februarius must have been the second month just before the Julian correction.

The seat then of this month U. C. 709 B. C. 45, and immediately before it, cannot be doubtful. Yet were it necessary for any purpose (and it is evidently necessary for the purpose which *we* have in view, viz. that of ascertaining the nature and effect of any change in the calendar of Numa which might have been made after his time,) were it necessary we say to inquire how long it might possibly have been occupying this seat in the calendar; we must come to the conclusion at last, that it could not always have been the second month: it must once have been the twelfth. And the only question will be When it ceased to occupy the last place and began to occupy the second in the order of the months, and by whom this change was made, and why?

Now it is possible to make out a series of years, from the date of the Julian correction upwards, in each of which

Februarius was still standing next after Januarius and next before Martius; and therefore was still ranking as the second month in the Roman calendar.

i. It may be collected from the history of the Bellum Africanum of Cæsar[p] that Februarius was following Januarius and preceding Martius U. C. 708 B. C. 46.

ii. It appears from Cicero[q] that Februarius stood next to Januarius and just before Martius U. C. 707 B. C. 47.

iii. It appears from Cicero[r] that Februarius came between Januarius and Martius U. C. 705 B. C. 49.

iv. It appears from Cicero[s] that Februarius stood between Januarius and Martius U. C. 704 B. C. 50.

v. It appears from Cicero[t] and Asconius[u] that Februarius came between Januarius and Martius U. C. 702 B. C. 52.

vi. The same thing appears U. C. 700 B. C. 54[w].

vii. It appears also U. C. 698 B. C. 56[x].

viii. It appears from Cicero[y] that Februarius followed Januarius U. C. 697 B. C. 57.

ix. The same thing appears U. C. 694 B. C. 60[z].

x. The same thing appears U. C. 693 B. C. 61[a].

xi. December is reckoned the last month in Cicero's consular year U. C. 691 B. C. 63; and twenty days only (in round numbers) are supposed to be remaining from the Nones of December that year to the Kalends of Januarius in the next, U. C. 692[b]: from which it must follow that no month could have come between them.

xii. It may be collected from Cicero[c] that Februarius would come next to Januarius U. C. 685 B. C. 69.

xiii. It is reckoned by Cicero too[d] to be a month and an half or 45 days between the Ides of Januarius and the Kalends of Martius; which implies that Februarius at this time must have come between them and must have been a month of 28 days.

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[p] Capp. 1. 2. 6: 9: 19: 37: 75: 79.

[q] Ad Atticum, xi. 7–12.

[r] Ibid. vii. 4—viii. 14: cf. ix. 10.

[s] Ibid. v. 20. 21: vi. 1.

[t] Oratio xxxviii. Pro Milone, 35.

[u] Præfatio in Orationem Pro Milone, 141: 144: 145: 147: 149.

[w] Cicero, ad Quintum Fratrem, ii. 12.

[x] Ibid ad Familiares, i. 5: ad Quintum Fratrem, ii. 2. 3.

[y] Oratio xxxii. Pro P. Sextio, 33: 35.

[z] Ad Atticum, i. 17: 18: 19.

[a] Ibid. 12: 13: 14: 15.

[b] Oratio xxxi. Pro Plancio, 37: xxxvii. In Pisonem, 2.

[c] Oratio vi. Actio in Verrem ii. lib. i. 35: cf. Oratio vii. Actio in Verrem ii. lib. ii. 31, 76.

[d] Oratio vi. Actio in Verrem ii. lib. ii. 52.

xiv. It appears from the date of the triumph of Sulla in the Fasti that Februarius followed on Januarius U. C. 674 B. C. 80.

xv. The same thing appears from the Fasti Triumphales U.C. 657 B. C. 97.

xvi. It appears from these Fasti also that Februarius preceded Martius U. C. 588 B. C. 166.

xvii. It appears from Livy[e] that Februarius followed Januarius U. C. 585 B. C. 169.

xviii. It appears from Livy[f] that Februarius was the last month in the consular year (which entered at this time on the Ides of Martius) U. C. 581 B. C. 173.

xix. It appears from Livy[g] that there were three months from the Ides of December in the consular year of U. C. 569 B. C. 185 to the Ides of Martius in that of U. C. 570 B. C. 184; which implies that both Januarius and Februarius at that time came between them.

xx. Februarius was the last month in the consular year, (which now began on the Ides of Martius,) U. C. 567 B. C. 187[h].

xxi. Februarius came between Januarius and Martius U. C. 565 B. C. 189[i].

xxii. It may be collected from the Fasti Triumphales that Februarius immediately preceded Martius U. C. 521 B. C. 233—232.

xxiii. It appears from these Fasti also that Februarius immediately preceded Martius U. C. 479 B. C. 275—274.

xxiv. It appears from them also that Februarius followed Januarius U. C. 461 B. C. 293—292.

xxv. It appears from them too that Februarius preceded Martius U. C. 432 B. C. 322—321.

xxvi. It appears from the same Fasti also that Februarius was preceding Martius U. C. 393 B. C. 361—360.

It thus appears that, from U. C. 709 B. C. 45 the date of the first Julian year to U. C. 393 B. C. 361, there is an uninterrupted series of years ascertained by testimony; in each of which there is every reason to conclude that Februarius was the second month in the calendar. Beyond this last year, U. C. 393 B. C. 361, the series fails, for want of similar testimony; unless we should add the date of the triumph of Camillus De Gallis, U. C. 365 B. C. 389, which has been handed down traditionally as celebrated on the Ides of Februarius, next after the capture of Rome by the Gauls: coupled with the tradition that Rome was liberated from the Gauls six or seven months after the date of the battle of Allia, the middle of Quinctilis. For that too would prove that Februarius must have followed Januarius and preceded Martius, U. C. 365 B. C. 389.

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[e] xliii. 11. [f] Ibid. xlii. 28. [g] Ibid. xxxix. 52. [h] Livy, xxxviii. 42.
[i] Ibid. xxxvii. 57–59: 48.

SECTION II.—*Inconsistency between the ascertained place of Februarius in the Calendar, from* U.C. 393 B.C. 361 *downwards, and its place at first.*

It is something to have been able to trace the actual site of this month in the calendar from B. C. 45 to an epoch comparatively so much earlier, B. C. 361; for that must be demonstrative that its place at the time of the Julian correction was of no recent date: that it had been *de facto* at that time, and might well be supposed to have been, the second month in the calendar for time out of mind.

Yet this discovery serves only to increase the perplexity connected with this question. It renders it only the more extraordinary that Februarius should have been passing *de facto* as the second month so early as U. C. 393, and yet that every extant testimony to its original position in the calendar, which can be depended on, should agree in representing it as the twelfth. We have seen that, according to the best and most authentic information on this point, two months were added to the calendar by Numa; to one of which he gave the name of Januarius, and to the other that of Februarius: and that he placed Januarius at the beginning of the year and Februarius at the end; a position which the former in particular never afterwards ceased to retain. And with regard to the original site of Februarius also in the calendar of Numa, testimony was confirmed by the etymon of the name of that month; by the ceremonies appropriated to this month in particular: by the date of the Terminalia fixed to the 23d of this month; by the five days cut off from it after the 23d, in order to answer to the epagomenæ of the Primitive year: and by the seat of the intercalary month, appointed at first to be inserted in this month between the Terminalia and those five days; and always in point of fact so inserted in this month. These are circumstances of distinction which in their first and proper intention, and as referred to the original constitution of the calendar, could not have held good of any month but the last.

SECTION III.—*Reconciliation of testimony on this point. The original place of Februarius in the Calendar, according to the appointment of Numa, some time or other changed.*

There is consequently at first sight equal reason to conclude that Februarius must have been the twelfth month in the Roman calendar, and that it must have been the second. And these conclusions at first sight too are inconsistent; absolutely so, if understood of the seat of this one month at any one and the same time. But we observe that Februarius must have been the twelfth month, according to testimony, from the first; and must have been the second, according to testimony also, only from a certain time downwards: which might be as early indeed as B. C. 361, but, as far as we have yet discovered, might not have been earlier.

The meaning of this distinction is that Februarius must have been the twelfth month before there is proof discoverable that it was now the second. There may consequently be no real inconsistençy between these two facts in the history of this one and the same month. Every one must allow it to be possible that a given month in a given calendar might have a certain place in that calendar assigned it at first, and yet in the course of time be removed from it to a different one.

It is therefore on this principle that we must endeavour to reconcile these two classes of testimony together; both that which made Februarius at one time the twelfth month in the calendar and that which at another time makes it the second. The original seat of this month in the calendar must some time or other have been changed. The question which we shall have to consider is Whether any proof of such a change is to be met with? who must have been the authors of the change, and what must have been its date? and whether it may not be older than the oldest of the facts from which we have collected that Februarius was even then the second month in the calendar, and not the twelfth?

SECTION IV.—*On the testimony of Ovid to the change of the site of Februarius in the Calendar made by the Decemviri.*

Now testimony is extant which supplies the proper answer to each of these questions; first by ascertaining the fact of such a change in the place of Februarius, and the persons by whom it was made; and secondly through that the time when it must have been made: and this is the testimony of a passage in Ovid De Fastis. It is true that no other testimony to the same things is extant in so many words; of which we are aware: yet that ought to be no objection. A single competent witness is sufficient to establish a matter of fact; especially where there is no evidence of any kind to be produced to the contrary. With respect to Ovid, he appears to have been so well informed on the subject of the ancient Roman calendar, that we consider his testimony the most satisfactory to which we could appeal on any question connected with it. And though he seems to stand alone in what he deposes to on this point; we shall probably see by and by that he is virtually corroborated by other testimonies, contained in Macrobius, when they come to be rightly understood.

The passage in his Fasti to which we allude is the following.

> Sed tamen antiqui ne nescius ordinis erres,
>   Primus ut est Jani mensis et ante fuit.
> Qui sequitur Janum veteris fuit ultimus anni:
>   Tu quoque sacrorum Termine! finis eras.
> Primus enim Jani mensis quia janua prima est:
>   Qui sacer est imis manibus imus erat.
> Postmodo creduntur spatio distantia longo
>   Tempora bis quini continuâsse viri[1].

It is distinctly here asserted or clearly implied that Januarius from the time of Numa downwards was always the first month, and Februarius, for a time, was the last; that consequently between Januarius and Februarius, according to the original constitution of the calendar, there was ten months' interval at least; i.e. almost the whole length of the year: that the actual position of these months one in relation to the other, which they were occupying in the time of Ovid and Germanicus, (which was one of contiguity in the proper order of the calendar, by virtue of which Februarius took up and continued Januarius,) was the effect of a change in their original relations in that respect, the authors of which were the Decemvirs. And by thus ascertaining the authors of the change he virtually assigns its date also; viz. some part or other of the period during which the decemviral form of government was in existence at Rome: which was in fact not more than two or three years at the utmost.

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[1] ii. 47.

All this is clearly asserted or implied in these statements; of the truth of which we have seen abundant reason to be satisfied. It becomes necessary therefore in the further prosecution of the present inquiries to consider the history of the appointment of the Decemvirs; i.e. the circumstances connected with the beginning the duration and the termination of that form of government at Rome. If the date of this appointment can be determined, and it can also be ascertained whether the authors of the change in the calendar were the first body of Ten or the second, it will give us the epoch of the change in terms of the year; and the epoch of the Decemviral correction being given in terms of the year, it will not be difficult to deduce from it the epoch in terms of the day: and both being known the epoch of the correction itself will be known.

SECTION V.—*On the beginning duration and termination of the Decemviral form of government at Rome. Mission of Deputies to Greece to collect the Laws of the* xii *Tables.*

The change in the form of the government at Rome by the appointment of Decemvirs arose eventually out of a motion which began to be agitated some years before; in the consulship of Lucius Lucretius and Titus Veturius Geminus: the true date of which, (if the first consulship is dated, as we believe it ought to be, B.C. 508,) was B.C. 461. At this time Caius Terentius or Terentillus Arsa, tribune of the people, brought forward a proposition De quinque viris creandis, legibus scribendis[m]; the object of which was the compilation of a body of laws whereby the rights of all parties should be equally defined, and provision be made for the administration of justice on settled principles. Notwithstanding the reasonableness of such a proposal, it encountered the most strenuous opposition from the patricians; and partly because of a pestilential state of things, partly because the greater part of the citizens, serving in the army at the time, were purposely kept abroad until the expiration of Terentius' year (Dec. 10 Roman, B. C. 461) no progress was made with the motion that year.

It was renewed by the tribunes of the next year[n] B. C. 460, Aulus Verginius and his colleagues: and from this time forward the history of the disputes excited by this question occupies not only the rest of this year[o], but the next, B. C. 459[p]; and so on for several years in succession. The reappointment of the tribunes for the third time is specified by Dionysius, U. C. 296 B. C. 458[q], and for the fourth, B. C. 457[r]; both which, as dated from the first appointment, B. C. 460[s], are correct. Livy notices the activity of the tribunes in this last year, Extremo anno[t]; after the abdication of the dictator Cincinnatus. The dispute is said to have been going on five years, and the tribunes to have been as often reappointed[u], the next year B. C. 456: which also is correct, if understood of years complete, dated from B. C. 461. This year, by a compromise with the patricians, the tribunes procured an augmentation of their numbers from five to ten[w]: and the next year, B. C. 455, appears to have been taken up by the erection of a public residence or domicile for them on the Aventine mount[x].

The following year, B. C. 454[y], Titus Romilius and Caius Veturius were consuls; and the contest was renewed with more violence than ever: fresh grounds of irritation[z] having occurred meanwhile. The end both of this tribunitian and of this consular year is specified[a]; and then the beginning of the next, B. C. 453[a]: when the consuls of the preceding year, Romilius and Veturius, were both arraigned by the tribunes as soon as they entered upon office*; and both were convicted before the people, for their conduct the year before, and fined[b]. And yet the first proposal to concede the point in dispute was made soon after in the senate by one of the two, Romilius himself; as Dionysius proceeds to relate[c]: Κεφάλαιον δ' ἐστὶν ὧν ὑμῖν παραινῶ πρέσβεις ἑλέσθαι τοὺς μὲν εἰς τὰς Ἑλληνίδας πόλεις τὰς ἐν Ἰταλίᾳ, τοὺς δ' εἰς Ἀθήνας· οἵτινες αἰτησάμενοι παρὰ τῶν Ἑλλήνων τοὺς κρατίστους νόμους καὶ μάλιστα τοῖς ἡμετέροις ἁρμόττοντας βίοις οἴσουσι δεῦρο.

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[m] Dionysius, x. i. Cf. ix. 69: x. 7. Livy. iii. 9. 10.

[n] Dionysius, x. 2, 3. Livy, iii. 9. 10.

[o] Dionys. x. 2–8. Livy, iii. 9. 10.

[p] Dionys. x. 9–19. Livy, iii. 15–22.

[q] Dionys. x. 19. 9. 20.

[r] Dionys. x. 22. Cf. xi. 20. Livy, iii. 25.

[s] Dionys. x. 2.

[t] Livy, iii. 29. Cf. Dionysius, xi. 20.

[u] Dionys. x. 26. Cf. 41. Livy, iii. 30.

[w] Dionys. x. 29. 30. Livy, iii. 30.

[x] Dionys. x. 31. 32. Livy, iii. 31. 32.

[y] Dionys. x. 33. Livy, iii. 31. 32.

The ratification of this proposition is next recorded[d]; Γραφέντος δὲ τοῦ προβουλεύματος, καὶ μετὰ ταῦτα ἐπικυρώσαντος τοῦ δήμου, πρέσβεις ἀπεδείχθησαν, οἱ τοὺς παρ' Ἑλλήνων νόμους ληψόμενοι, Σπόριος Ποστούμιος καὶ Σερούϊος Σουλπίκιος καὶ Αὖλος Μάλλιος. Livy too sums up his account of these proceedings with the mission of deputies to Athens, to transcribe the laws of Solon[e]: Missi legati Athenas Sp. Postumius Albus, A. Manlius, P. Sulpicius Camerinus: jussique inclutas leges Solonis describere, et aliarum Græciæ civitatium instituta mores juraque noscere. Dionysius adds immediately after their mission, Καὶ τὸ ἔτος ἐτελεύτα; which means the year next to the consular one of Romilius and Veturius, B. C. 453. And as nothing appears on record either in him or in Livy, relative to the events of this year, except the history of this mission; the case might be as he represents it, that the year actually came to an end soon after the departure of these delegates. And yet the time of the close of the whole affair would seem to have been early

* Τῇ πρώτῃ τῆς ἀρχῆς ἡμέρᾳ—according to Dionysius; Dec. 10 Roman B. C. 454. It is worthy of remark that that was not a Nundinal day; a thing which requires to be attended to at this early period; as may more clearly appear hereafter.

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[z] Dionys. x. 33–47. Livy, iii. 31 32.
[a] Dionys. x. 47. 48. Livy, iii. 31. 32.
[b] Dionys. x. 48. 49. Cf. 52.
[c] Dionys. x. 51.
[d] Ibid. 52. cf. 56: Livy, iii. 33.
[e] iii. 31. cf. 33.

in B. C. 453 itself; soon after the trial and condemnation of the two consuls[f], the first thing which happened in the Tribunician year: so much so that the fine imposed on Romilius had not yet been paid[g] when he himself proposed the motion in the senate, which was immediately agreed to and past.

SECTION VI.—*Return of the Deputies from Greece, and appointment of the first body of Decemvirs.*

The first year after the departure of the deputies is specified by Dionysius as the consular year of P. Horatius, Sextus Quintilius[h], characterized also by Ol. 82. 1 and by the archonship of Chærephanes: to which he adds, Ἐτῶν τριακοσίων ἐκπεπληρωμένων ἀπὸ τῆς Ῥώμης συνοικισμοῦ. His date of the Foundation being B.C. 751 ex Palilibus; this cannot designate an earlier time than B. C. 452, U. C. 300 *ineunte*, not *exeunte;* to which too the context of his account and the series of consuls, brought down regularly to this point of time from B. C. 508, as well as the other chronological notes, conspire to fix it.

The second year is mentioned also; when L. Menenius P. Sestius were consuls[i]: on the same principle as before, B. C. 451. In this year both Dionysius and Livy date the return of the deputies[i]. Livy barely mentions the fact; Jam redierant legati cum Atticis legibus. Dionysius appears to date it early in the spring[i]; certainly before the usual time of the consular comitia this year: which, generally speaking, at this period was the end of the summer, or the beginning of the autumnal, quarter. On this principle, as he supposed them to have set out upon their errand only towards the end of B. C. 453; he could not have allowed them much more than a year and six months for the execution of their commission. We suspect however that in dating the return any time B. C. 451 both he and Livy were mistaken; and that it really took place early in B. C. 450.

The election of consuls against this year, B. C. 450, according to Dionysius[i] took place after the return of the deputies; in the usual manner though sooner than the usual time: and both he and Livy[k] and the Fasti consulares agree that the consuls elected were Appius Claudius and Titus Genucius. The election of the first body of Decemvirs was posterior to both these things; and is attributed by Dionysius[l] chiefly to the advice of Appius, one of these consules designati himself: Ἐνίκα δὲ ἡ τῶν εἰς νέωτα μελλόντων ὑπατεύειν γνώμη ἣν Ἄππιος Κλαύδιος πρῶτος ἐρωτηθεὶς ἀπεφήνατο, ἄνδρας αἱρεθῆναι δέκα τοὺς ἐπιφανεστάτους ἐκ τῆς βουλῆς. τούτους δ' ἄρχειν ἐνιαυτὸν ἀφ' ἧς ἂν ἀποδειχθῶσιν ἡμέρας, ἐξουσίαν ἔχοντας πάντων τῶν κατὰ τὴν πόλιν ἣν εἶχον οἵ τε ὕπατοι καὶ ἔτι πρότερον οἱ βασιλεῖς.

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[f] Dionys. x. 48—50: Livy, iii. 31. [g] Dionys. x. 52. [h] x. 53. cf. Livy, iii. 31. [i] x. 54. cf. Livy, iii. 33. [k] iii. 33.

In conformity to this advice[m] a Senatûs consultum was forthwith passed, and afterwards ratified by the people, embodying the proposition in a law; and the time of the election of the ten legislators being now come (Ἐπεὶ κατελάμβανεν ὁ τῶν ἀρχαιρεσιῶν καιρὸς[n]) then according to Dionysius the consuls elect are supposed to have abdicated, and the Decemvirs to have been appointed in their stead: among whom however, in every list of them which has come down to posterity, the names of those new consuls stand at the head of all.

On this principle it must have been strictly in the consular year of Menenius and Sestius[n] that the deputies returned, and that these Decemvirs were appointed. The Fasti Capitolini however date this appointment in the consular year of Appius and Genucius; whom they suppose to have abdicated on purpose to make way for them: and therefore to have been previously in office. And this seems to have been the truth of the case; viz. that these two consuls had actually entered upon office before the first Decemvirs were appointed, and actually abdicated to make way for them; in which case, if the first Decemvirs were actually elected B. C. 450, the deputies must have returned B. C. 450 also. It would be absurd to suppose consuls elected after their return, sooner than usual, only to abdicate their office immediately afterwards. The consular comitia were no doubt held B. C. 451; but not sooner than usual, nor after the return of the deputies, but before it. And that the Tribuni plebis, even after the return of the delegates, are represented as already beginning to be importunate for the appointment of legislators[o] is so far an argument of the beginning of a fresh tribunician year not long before.

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[l] x. 55. [m] Dionys. x. 56. Cf. Livy, iii. 32 : 33. [n] Cf. 54.

The strongest proof of the fact however for which we are contending is this. The motion of Appius was that the Decemvirs should enter on office from the day of their election, Ἀφ᾽ ἧς ἂν ἀποδειχθῶσιν ἡμέρας; and though the day on which the first body actually entered upon office is not specified either by Dionysius[p], or by Livy[q], that on which the second body did so is mentioned by both: Ἐν δὲ τῷ κάτοπιν ἔτει παραλαβόντες τὴν ὑπατικὴν ἐξουσίαν οἱ σὺν Ἀππίῳ Κλαυδίῳ δέκα ἄνδρες Εἰδοῖς Μαίαις· ἦγον δὲ τοὺς μῆνας κατὰ σελήνην, καὶ συνέπιπτεν εἰς τὰς Εἰδοὺς ἡ πανσέληνος[r]—Ille finis Appio alienæ personæ ferendæ fuit. suo jam inde vivere ingenio cœpit, novosque conlegas jam prius quam inirent magistratum in suos mores formare . . . inde inpotentibus instructi consiliis . . . . ad Idus Maias rem perduxere. Idus tum Maiæ sollemnes ineundis magistratibus erant[s].

If this last assertion of Livy's is to be understood absolutely, it may very well be called in question. The consular ingress just before the appointment of the Decemvirs, as we may see hereafter, was the Kalends of January; and just after the restoration of the consular government it was the Ides of December. But if it is to be understood in a limited sense, and of the proper day for the commencement of the official year of the second body of Ten, it may be true. And that will imply that the proper beginning of the second year had been determined by that of the first. The first body had entered on the Ides of May; and therefore the second body must do so too. It might be accident which had determined the ingress of the first year to that day; but having been so determined in the first instance it must have given the law to the next case of the same kind. The second body of Decemvirs could have no legitimate excuse either for entering upon their office before the Ides of May, or for continuing in it after them. For which reason, with the arrival of the Ides of May in the third year, unless their power and jurisdiction were to be renewed in a constitutional manner, it might justly be considered to have expired of itself. Idus Maiæ, says Livy[t],

[o] Dionys. x. 54. Livy, iii. 32.
[p] x. 56.
[q] iii. 33.
[r] Dionysius, x. 59.
[s] Livy, iii. 36.
[t] iii. 38: 40.

venere. nullis subrogatis magistratibus privati pro Decemviris prodeunt: so that Valerius and Horatius had the best of reasons for treating and speaking of them in the debates which ensued, as no longer official, but private, persons after that day; and as usurping a power and character to which they had no longer any claim: a charge which L. Cornelius Maluginensis, one of their body, was consequently forced to notice; Sibi placere de eo quod Valerius Horatiusque ante Idus Maias Decemviros abiisse magistratu insimulent[t].

The truth then appears to be that the deputies, instead of returning in B. C. 451, must have done so in B. C. 450; only sufficiently early in that year to allow time for the proceedings which ensued upon their return down to the appointment of the first body of Decemvirs on the Ides of May. This day B. C. 450 fell on May 30; and the deputies probably returned in March or April. They would necessarily find the consuls of the year, Appius and Genucius, in office; as the Fasti Capitolini imply that they did. The length of their absence would be two years complete: which, if we consider the nature of the business on which they had been sent, and the delays incidental to travelling in these early times, cannot be regarded as too much.

In any case, if they returned even B. C. 451 yet later than the Ides of May that year; the official year of the first body must still have borne date from the Ides of May B. C. 450. In this year Livy dates it. Anno trecentesimo altero quam condita Roma erat iterum mutatur forma civitatis ab consulibus ad Decemviros[u]. His date of the Foundation being B. C. 751, Ex Palilibus, the 302d year of the city would bear date B. C. 450, Ex Palilibus. And though that was not the true year of the city, yet even this is correctly assigned in a fragment quoted by Suidas, under the title of *Νομογράφοι*—which was very probably derived from Polybius: *Παρὰ Ῥωμαίοις τριακοσιοστῷ πρώτῳ ἐνιαυτῷ μετὰ τὸν συνοικισμὸν τῆς πόλεως παραλυθείσης τῆς τῶν ὑπάτων ἀρχῆς δέκα νομογράφοι τὴν τῶν κοινῶν ἐπιτρέπονται προστασίαν.* This date is the Polybian; answering to B. C. 450 Ex Palilibus.

We have therefore now established a point of considerable importance; viz. that, as the appointment of even the first body of Decemvirs cannot be dated earlier than the Ides of May B. C. 450, neither can any change or correction of the calendar, made by virtue of the Decemviral authority. But there still remains another question of equal importance; viz. whether the actual correction of the calendar, attributed by Ovid to the Decemvirs, was the work of the first or of the second body?

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[t] iii. 38.

[u] iii. 33.

SECTION VII.—*Whether the change made in the Calendar was the work of the first or of the second body of Decemvirs?*

The first year's proceedings of the Decemvirs are circumstantially related by Dionysius[w] and by Livy[x]. It is agreed that ten out of the twelve tables were compiled by this body, and were published as it would seem towards the close of their year of office: *Οὗτοι οἱ δέκα ἄνδρες συγγράψαντες νόμους ἔκ τε τῶν Ἑλληνικῶν νόμων καὶ τῶν παρὰ σφισὶν αὐτοῖς ἀγράφων ἐθισμῶν προὔθηκαν ἐν δέκα δέλτοις τῷ βουλομένῳ σκοπεῖν . . . . ἐπειδὴ δ' ἀποχρώντως αὐτοῖς ἐφαίνετο τὰ γραφέντα ἔχειν, πρῶτον μὲν τὴν βουλὴν συναγαγόντες, οὐθενὸς ἔτι μεμφομένου τοῖς νόμοις, προβούλευμα περὶ τούτων ἐκύρωσαν· ἔπειτα τὸν δῆμον ἐκάλεσαν ἐπὶ τὴν λοχῖτιν ἐκκλησίαν, ἱερομνημόνων τε καὶ οἰωνιστῶν καὶ τῶν ἄλλων ἱερέων παρόντων, καὶ τὰ θεῖα ὡς νόμος ἐξηγησαμένων, ἀνέδωκαν τοῖς λόχοις τὰς ψήφους. ἐπικυρώσαντος δὲ καὶ τοῦ δήμου τοὺς νόμους, στηλαῖς χαλκαῖς ἐγχαράξαντες αὐτοὺς ἐφεξῆς ἔθεσαν ἐν ἀγορᾷ τὸν ἐπιφανέστατον ἐκλεξάμενοι τόπον. καὶ ἐπειδὴ βραχὺς αὐτοῖς ἦν ὁ λειπόμενος τῆς ἀρχῆς χρόνος, συναγαγόντες τοὺς βουλευτὰς προὔθεσαν ὑπὲρ ἀρχαιρεσιῶν ὡς χρὴ γενέσθαι σκοπεῖν*[y]. Livy's account is substantially the same[z]. There can be no doubt then that the compilation of the first ten tables was the work of the first body; and that the date of their publication was not long before the expiration of their official year: most probably B. C. 449 ineunte.

After the mention of the above particulars Livy proceeds[z]: Vulgatur deinde rumor duas deesse tabulas; quibus adjectis absolvi posse velut corpus omnis Romani juris. ea exspectatio quum dies comitiorum adpropinquaret desiderium Decemviros iterum creandi fecit. Dionysius too continues his ac-

[w] x. 57, 58. [x] iii. 33, 34. [y] x. 57.
[z] iii. 34. Cf. Suidas, Νομογράφοι.

count in these terms[a]: *Πολλῶν δὲ λεχθέντων ἐνίκησεν ἡ γνώμη τῶν παραινούντων δεκαρχίαν αὖθις ἀποδεῖξαι τῶν κοινῶν κυρίαν· ἀτελὴς γὰρ ἡ νομοθεσία ἐφαίνετο ὡς ἂν ἐξ ὀλίγου συντεθεῖσα χρόνου, καὶ ἔτι τοῖς ἤδη κεκυρωμένοις ἵνα ἑκοντές τε καὶ ἄκοντες ἐν αὐτοῖς μένοιεν ἐδόκει δή τινος ἀρχῆς αὐτοκράτορος δεῖν.* This then was the motive to the continuation of the Decemviral form of government for a second year; viz. in order that the compilation of the code of laws begun in the first might be completed in the second, and that two more tables might be added to the ten already published. The account of the comitia for the election of the second body of Decemvirs, and the names of the persons elected, follow next in each of our authorities[b].

It has been already shewn that though elected at these comitia, before the close of the first year, this second body did not enter on office before the Ides of May at the beginning of the second. The Ides of May in the calendar of Numa B. C. 449 fell out May 19. This day was consequently the proper date of the expiration of the first Decemviral year and of the commencement of the second. The assumption of office by the second body on that day accordingly is attested by both Dionysius and Livy. *'Ενστάσης δὲ τῆς ἡμέρας ἐν ᾗ παραλαβεῖν αὐτοὺς ἔδει τὴν ἀρχὴν . . . . ἱερὰν δὲ ταύτην ἄγουσι Ῥωμαῖοι τὴν ἡμέραν, καὶ παντὸς μάλιστα ὀττεύονται μητ' ἀκοῦσαι μηθὲν ἀηδὲς ἐν αὐτῇ μητ' ἰδεῖν· ἕωθεν εὐθὺς ἐξῄεσαν οἱ δέκα κ̀, τ. λ.*[c]—Ad Idus Maias rem perduxere. Idus tum Maiæ sollemnes ineundis magistratibus erant. initio igitur magistratus primum honoris diem denuntiatione ingentis terroris insignem fecere[d].

The particulars of this second year follow down to the time when the *ἀρχαιρεσίαι* or comitia for the election of the magistrates of the next year were or should have been at hand; by which time it appears the two remaining tables had been compiled, and waited only for their final confirmation by the people: *Οἱ δὲ περὶ τὸν Ἄππιον τοὺς λοιποὺς συγγράψαντες νόμους ἐν δέλτοις δυσὶν καὶ ταύτας ταῖς πρότερον ἐξενεχθείσαις προσέθηκαν*[e]. And that this was not long before the expiration of the year appears from what is next subjoined:

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[a] x. 58.
[b] Dionys. x. 58. Livy, iii. 35.
[c] Dionys. x. 59.
[d] Livy, iii. 36.
[e] Dionys. x. 60. Livy, iii. 36, 37.

῾Ως δὲ καὶ ὁ τῶν ἀρχαιρεσιῶν ἐπέστη χρόνος . . διέμειναν ἐπὶ τῆς ἀρχῆς[e]. Dionysius specifies the beginning of the next year, the third of the Decemviral form of government, Μετὰ δὲ τοῦτον τὸν ἐνιαυτόν[f]—which he characterizes after his usual manner by Ol. 83. 1. and by the archonship of Philiscus; both answering to B. C. 448[g].

It is evident therefore that he must have dated the compilation of the last two tables, and their publication also, towards the end of the preceding year, B. C. 449; though he afterwards makes Appius speak as though they still required confirmation in the third year, B. C. 448 itself[h]. Livy's account is to the same effect: Jam et præcesserat pars major anni, et duæ tabulæ legum ad prioris anni decem tabulas erant adjectæ: nec quidquam jam supererat si hæ quoque leges centuriatis comitiis perlatæ essent cur eo magistratu reipublicæ opus esset. exspectabant quam mox consulibus creandis comitia edicerentur[i].

It is not necessary for us to continue the history of this second body into their second year, the year of usurpation; which both in Dionysius[k] and in Livy[l] is dated from the Ides of May B. C. 448, answering to the Julian May 31. Nor does it concern our present purpose to inquire how long after this day they continued to retain the power which they had usurped, before they were deposed and the consular government was restored. It is certain that this usurpation was limited to the interval between the Ides of May B. C. 448 and the vii Kal. Septembres the same year; the date of the triumphs of the two consuls[m], first appointed after the restoration, Valerius and Horatius: and it seems on every account the most probable conjecture that the actual date of the restoration, arising as it did out of the war with the Sabines and the Æqui[n], and out of the affair of Verginia, was not much later than the Ides of May this year, May 31 B. C. 448 itself.

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[e] Dionys. x. 60. Livy, iii. 36, 37.

[f] x. 61.

[g] Cf. also xi. 1 and 20: where the current year B. C. 448 is reckoned to have been the 9th or 10th since the consular year of Caius Nautius and Lucius Minucius (x. 22) U. C. 297 B. C. 457, when Lucius Quinctius was made dictator. x. 24, 25.

[h] xi. 6.

[i] iii. 37.

[k] xi. 1–44.

[l] iii. 36–55.

[m] Fasti Triumphales. Cf. Dionys. xi. 45–50: Livy, iii. 55–64.

[n] Dionys. xi. 3–21–40: Livy, iii. 38–50.

We are concerned with no part of the history of this second body but that which relates to the addition by them of the two last tables; and it appears from both our authorities that these must have been compiled by them and must have been added to the preexisting collection or complex of the body of Roman law, while they were still constitutionally in office. It is agreed too that this completion of the tables under their auspices must have taken place not long before the expiration of their legal year; and this fact is further confirmed by Zonaras: whose testimony to it may be considered to be virtually that of Dio Cassius. For after mentioning the appointment of the second body he proceeds: *'Οψὲ δέ ποτε ἐπ' ἐξόδῳ τοῦ ἔτους ὀλίγα ἄττα ἐν δύο σανίσι προσέγραψαν* . . . and then: *Αἱ μὲν οὖν λεγόμεναι Δώδεκα Δέλτοι οὕτως ποτὲ ἐγένοντο. οἱ δὲ νομοθέται ἐκεῖνοι οὐ μόνον ταῦτ' ἔπραξαν ἀλλὰ καὶ τοῦ ἐνιαυτοῦ τῆς ἀρχῆς αὐτοῖς διελθόντος ἐπὶ τοῖς πράγμασιν ἐνέμειναν*[o].

This fact of the publication of the two last tables, and thereby the completion of the collection, late in the first year of the second body is implied by Cicero de Republica also[p], who assigns the first ten to the first body and to the first year of the Decemviral government, and the two last to the second, and apparently in the third year of this government; and so far in the year of the usurpation[q]. It is implied even by the statement which occurs in Diodorus[r]; that the two last tables were added, and so far the whole was completed, not by this second body but by the first consuls after the restoration, Horatius and Valerius: the probable explanation of which is that not only these two additional tables, but the ten already compiled, were in some manner or other confirmed anew under their auspices; so that the final ratification of all the twelve might be their doing*.

* This seems to have been Livy's opinion. For after relating the proceedings subsequent to the appointment of these consuls, (iii. 55—59.) down to the time of their taking the field, he observes: iii. 57: Priusquam urbem egrederentur leges decemvirales quibus Tabulis Duodecim est nomen in æs incisas in publico proposuerunt. He adds: Sunt qui jussu Tribunorum Ædiles functos eo ministerio scribant. On this principle the

[o] vii. 18. 347 A. B.

[p] ii. 80, 81: cf. 76.

[q] Cf. Suidas, Νομογράφοι.

[r] xii. 24–26.

Even after the beginning of the second year of the second body Appius alluded to something as still wanting to the authority of this last part of the tables[s]: which seems to imply that it had been made public but had not yet been formally confirmed and sanctioned. The publication of the first ten tables had preceded their ratification; and the case might be the same with that of the two last[*].

SECTION VIII.—*The change in the Calendar the work of the second Body. Testimony of Tuditanus and of Cassius Hemina.*

There is consequently every reason to conclude that the two Tables added to the ten by the second Body must have been promulgated towards the close of their first year; not long before the proper time of holding the comitia for the election of the magistrates of the ensuing year. And as that year would bear date on the Ides of May (May 31) B.C. 448, the proper time of the comitia, at the usual distance before the actual ingress of the official year, would not be less than five or six months previously. On this principle the precise date of the publication of the last two Tables must have been the end of B.C. 449, rather than the beginning of B.C. 448.

Now Macrobius, speaking of the rule of intercalation in

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two last Tables might have been already made public, before this time, as well as the ten first; but all alike stood in need of a fresh or of a final adoption and confirmation: perhaps that they might all receive it at the hands of the people, now free and spontaneous agents. Cf. Dionysius, xi. 45, 46.

[*] With the preceding particulars relating to the history of the Decemvirs in general, we may compare Zonaras, vii. 18. 346. C—348. C. Diodorus, xii. 23—26: Eutropius, i. 17: Orosius, ii. 13: Lydus, De Magistratibus, i. 45. 155: Cassiodorius in Chronico, &c.: Dionysius, ii. 27. dates their appointment, and the publication of the Ten Tables, 300 years in round numbers after the legislation of Romulus; which would answer to U. C. 301 of his æra, B. C. 451, Ex Palilibus; a year too soon. Diodorus, xii. 23, dates the appointment of the first body Ol. 84. 1, Praxiteles, B. C. 444—443; and the completion and publication of the Corpus Juris by the consuls Horatius and Valerius, as he supposes, two years later, Diphilus, B. C. 442—441. But his consular years at this period of his history labour under an anachronism of 5 or 6 years too late; which being rectified in these instances would bring his dates very near the truth.

[s] Dionys. xi. 6.

the Roman calendar generally, and of the earliest instances of actual intercalations of which any account had been preserved, mentions a fact which is very important to us, at this stage of our inquiries. Tuditanus, says he[t], refert libro tertio magistratuum Decemviros qui decem Tabulis duas addiderunt de interkalando populum rogâsse: from which words, considering of what he is here speaking, we must infer that the first intercalation was supposed by Tuditanus to have been in some sense or other the work of these Decemvirs, though requiring for its proper effect the previous approval and sanction of the whole of the people. He adds, Cassius eosdem scribit auctores: i. e. Cassius Hemina, another old Roman historian of good authority; and this confirms the inference from the preceding testimony. Cassius described these decemvirs as *auctores* in reference to the rule or practice of the intercalation in question; and that means that something proceeded from them in the *first* instance of that kind, which was of standing occurrence, in deference to their authority, ever *after*.

It appears to us that in these allusions to the testimony of Tuditanus and Cassius on this particular point we have a corroboration of Ovid's statement respecting the change of the place of Februarius, as the act of the Decemvirs in general; with this additional piece of information concerning it, omitted by him, that it was the act of the second Body in particular. For we shall see by and by that an alteration in the place of Februarius, if actually made at this time, would necessarily entail a change in the rule of intercalation also from that time forward. And, if these Decemvirs were the authors of that change, they could scarcely fail to be regarded and to be spoken of ever after as the authors of the rule and system of intercalation too in the Roman calendar; such as it became from that time forward. They were actually the authors of a proper rule of that kind, different from what had been in use before; yet retained in use ever after.

If the fact indeed is historically true, that these Decemvirs did some time or other bring before the people a specific motion *De interkalando*; it must have been with a view to some change in the old rule of that kind for a different one.

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[t] Saturnalia, i. 13. 267.

To suppose such a motion made for the first time when these Decemvirs were now in office, and *De interkalando* ἁπλῶς, 263 years after the calendar of Numa had been in regular use and operation at Rome, would be absurd. Such a motion then, if actually made by them and at this time, could not have been *De interkalando* ἁπλῶς. It must have been *De interkalando* under the special circumstances of the case; the most probable explanation of which would be the necessity or expediency, for some reason or other, at this particular juncture, of making a change in the old rule of intercalation. And that, as we shall ultimately see, would be the unavoidable consequence of changing the place of Februarius in the calendar, at this time, (B. C. 449,) in particular; from the twelfth in the order of the months to the second.

SECTION IX.—*Relation of the assumed date of the change* B. C. 449 *to the Cycle of Numa; and argument thence deducible of the true year of the change.*

It is first of all however to be observed that for such a purpose as the change or correction of the civil calendar not by substituting a new one for the old, but by modifying or altering the details of the existing calendar in one single respect, the seat of the last of its months; the end of one cycle and the beginning of another, if circumstances permitted it, would by all means be selected. If the change was to be limited simply to *this* effect, that the twelfth month, in the pre-existing arrangement and order of the calendar, was to become the second; nothing would appear to be more desirable, because nothing could be more convenient, for such an effect as that than the end of one regular cycle and the beginning of another. A change so made at the end of a cycle would be carried into effect with scarcely any sensible disturbance of the existing order of things. The first month would simply fall back into the place of the twelfth, and the twelfth would simply step forward into the place of the second; and the new arrangement would take up and continue the old in all other respects just as if every thing had remained the same.

Now B. C. 449 was actually the last year of one of the cycles of Numa. The xith cycle of his calendar ended

B. C. 449; and, if his calendar had undergone no change, the xiith would have begun B. C. 448. This single consideration in our opinion is sufficient to decide the question whether the correction of his calendar, as limited to this one effect of removing Februarius from the twelfth seat in the order of the months to the second, made by the Decemvirs in general, must have been the doing of those of the first body or of those of the second in particular; viz. that B. C. 450, the year of the first body, was not the last year of the current cycle of Numa, nor consequently adapted *a priori* to such a change: but B. C. 449 the year of the second body was so, and altogether the most convenient which could have been selected for the purpose.

It may safely be assumed therefore that the epoch of this Decemviral correction in terms of the year must have been B. C. 449, the end of the xith cycle of Numa. And as to the details and effect of the correction; i. Since it appears that no change was made by it, and therefore none was intended to be made by it, in the seat of Januarius, it is manifest that Januarius would continue to be the first month after the correction as much as before. ii. Februarius, which was before the twelfth month, becoming by virtue of the correction the second month; the first and immediate effect of the correction would be that Januarius and Februarius would change places. Januarius would fall back into the place of Februarius, and Februarius would step forward into the place of Januarius. And *this effect* must have been the consequence of such a correction, and so limited, in whatsoever year of the cycle it might have been made. iii. Since it appears from actual instances of intercalations subsequent to the correction that it made no change, and therefore never intended to make any, in the seat of the intercalary month as always included in Februarius; if the correction happened to take place in an intercalary year the removal of Februarius from its former seat in the calendar to a fresh one would entail the removal of the Merkedonius along with it also. And, if this change was made in the last year of the cycle, the removal of the Merkedonius, from the end of the last year of one cycle to the beginning of the first year of the next, would entail a change in the intercalary rule of the cycle, and at the very beginning of the cycle; which would necessarily affect it to the end.

It is easy then to see that, under these circumstances, if the epoch of the Decemviral correction was the 24th year of the xith cycle of Numa, three things would be necessary to carry it into effect. i. That the Kalends of Februarius in the last year of the cycle of Numa should become and thenceforward be reckoned the Kalends of Januarius in the first year of that of the Decemviral correction. ii. That the twelfth month of the last year of the former cycle, including the Merkedonius, should be reckoned the second month in the first year of the latter. iii. That, as the first year of this cycle by the transposition of the Merkedonius to make part of that year was rendered intercalary, the third year should be intercalary also; and the third being so, the fifth should be so, and so on: that is, that the rule of intercalation hitherto observed, whereby the even years only were intercalary, should be altered to the contrary one, of making the odd years only from that time forward intercalary. To carry these various changes into effect an express resolution of the people might well be considered necessary. Hence the *rogatio ad populum* of Tuditanus alluded to by Macrobius; a *rogatio* which might very possibly coincide with the same point of time as the promulgation of the two tables; and both with the end of B. C. 449.

Now the Kalends of Februarius in the last year of the cycle of Numa fell on December 29: and on this day were they falling cycle xi. 24. B. C. 449. The proper epoch of the Decemviral correction consequently in terms of the year was B. C. 449; in terms of the month and of the day was December 29; in terms of both was December 29 B. C. 449. And in this conclusion we may acquiesce implicitly for the present. Its confirmation will employ us hereafter. The history of the Roman calendar from this time forward, both that of the regular and that of the irregular, is properly that of this correction, which B. C. 449 superseded the calendar of Numa. It is however by all means to be remembered that the confirmation of the Decemviral correction by its proper proofs is that of the calendar of Numa also; from which it was derived, and from which it differed only in those points which have been explained. The proofs which serve for this confirmation in the present instance too are the same in general which we enumerated before[u], as available for the same purpose in behalf of the calendar of Numa; The testimony of extant dates; The order and succession of intercalary years; The cycle of the Nundinal day; and the like.

We shall therefore now propose the Type of this Decemviral calendar, analogous to that of the calendar of Numa, which we exhibited in the proper place before[w].

SECTION X.—*Type of the* Εἰκοσιτετραετηρὶς *of the Decemvirs. Epoch, December* 29 *at midnight, B.C.* 449.

Cycle.	Number of days in the year.	Lunar Epacts.	Proleptic Julian date, Kalendæ Januariæ.	Nundinal Character	Nundinal Epact	Nundinal Character	Nundinal Epact	Nundinal Character	Nundinal Epact	Nundinal Character	Nundinal Epact
				Per. i. Cyc. i.		Per, i. Cyc. ii.		Per. i. Cyc. iii.		Per. i. Cyc. iv.	
i*	377	4	Decemb. 29	5	1	7	1	1	1	3	1
ii	355	27	January 10	4	3	6	3	8	3	2	3
iii*	378	28	Decemb. 31	1	2	3	2	5	2	7	2
*iv	355	22	January 13	7	3	1	3	3	3	5	3
v*	377	23	January 2	4	1	6	1	8	1	2	1
vi	355	16	.. 14	3	3	5	3	7	3	1	3
vii*	378	17	.. 4	8	2	2	2	4	2	6	2
*viii	355	11	.. 17	6	3	8	3	2	3	4	3
ix*	377	12	January 6	3	1	5	1	7	1	1	1
x	355	5	.. 18	2	3	4	3	6	3	8	3
xi*	378	6	.. 8	7	2	1	2	3	2	5	2
*xii	355	30	.. 21	5	3	7	3	1	3	3	3
xiii*	377	1	January 10	2	1	4	1	6	1	8	1
xiv	355	24	.. 22	1	3	3	3	5	3	7	3
xv*	378	25	.. 12	6	2	8	2	2	2	4	2
*xvi	355	19	.. 25	4	3	6	3	8	3	2	3
xvii*	377	20	January 14	1	1	3	1	5	1	7	1
xviii	355	13	.. 26	8	3	2	3	4	3	6	3
xix*	377	14	.. 16	5	1	7	1	1	1	3	1
*xx	355	7	.. 28	4	3	6	3	8	3	2	3
xxi	355	8	January 17	1	3	3	3	5	3	7	3
xxii*	377	9	.. 7	6	1	8	1	2	1	4	1
xxiii	355	2	.. 19	5	3	7	3	1	3	3	3
*xxiv	355	3	.. 9	2	3	4	3	6	3	8	3

8766. Sum of days collected at the end of the cycle.

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[u] Supra, p. 204. Diss. iii. ch. i. sect. ix.

[w] Ibid. 269. Diss. iii. ch. iii. sect. ii.

SECTION XI.—*On the points of agreement and the points of disagreement between the* Εἰκοσιτετραετηρὶς *of the Decemvirs and that of Numa.*

i. In the length of the cycle in each there was no difference. Both were periods of 24 years, or Εἰκοσιτετραετηρίδες. Moreover, as the end of the last year of the cycle of Numa entered into the beginning of the first year of that of the Decemvirs, the reckoning of annual and noctidiurnal time by the former was taken up and continued in the same way by the latter*. The relation of the years of the decemviral cycle to those of the Julian cycle of leap year was consequently the same as that of those of the cycle of Numa. Every fourth year in the former, dated from the Kalendæ Januariæ, was leap year in that cycle as much as every fourth in the latter.

ii. The length of the common years, in each of these cycles, was the same; 355 days. The length of the intercalary years also was the same in each, 377 days at one time, 378 at another. The number of years of either kind was the same in each. The sum total of days and nights was the same in each, 8766 exactly. The decemviral cycle consequently was equal to 24 mean Julian years, or to three octaëteric cycles of eight years each, as much as that of Numa.

iii. The lunar epacts in the decemviral cycle could not be the same with those in the cycle of Numa, because the epoch of the former was Dec. 29 that of the latter was February 17. But the former were proportional to the latter; and proportionably derivable from them. The lunar character of cycle xii. 1 of Numa, Feb. 17 B.C. 448, being assumed as the luna 25^{a}: that of cycle i. 1 of the decemvirs, Dec. 29 B.C.

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* The reader however should be made aware that as the Kalendæ Januariæ were set back from Feb. 17 to December 29, and that too in the 24th or last year of the current cycle of Numa; the absolute length of that one cycle of Numa in days and nights was abridged by the amount of the interval from Dec. 29 to Feb. 17; that is, 50 days exactly. That one cycle of Numa therefore contained only 8716 days and nights; though every one before it contained 8766. The length of cycle xi. 24 of Numa in point of fact was 327 days, instead of 377: and the Nundinal epact on that year was 7 instead of 1.

449, must be assumed as the luna 4ª. The luna 4ª was therefore as properly the lunar character of the decemviral cycle as the luna 25ª of that of Numa.

iv. The Kalendæ Januariæ in the decemviral cycle could not be the same with the Kalendæ Januariæ in that of Numa. But the Kalendæ Februariæ all through the cycle of Numa, *mutatis mutandis,* were the same with the Kalendæ Januariæ all through the cycle of the decemvirs. And with respect to the rest of the months; the Kalends of Februarius in every year, and the Kalends of the Merkedonius in the intercalary year, in the two cycles respectively, were necessarily different: but for the remainder of the year, from Martius to December in both, the Kalends of every month in the one *mutatis mutandis* were the same with those of every month in the other*.

v. The cycle of the Nundinal day was just the same in the decemviral calendar as in that of Numa. The Nundinal period was one of 96 years too in the former as much as in the latter. The Nundinal character of the first year of the former also was exactly the same as that of the first of the latter; though that was an effect which must be resolved more or less into accident. The Nundinal character of cycle xi. 24 of Numa by the law of the cycle was 4; i. e. the fourth of Januarius in that year of the cycle was Nundinal. Consequently the Nundinal character of Februarius the same year was 5; i. e. the Nones of Februarius that year were Nundinal. And the Kalends of Februarius cycle xi. 24 of Numa becoming the Kalends of Januarius cycle i. 1 of the decemvirs; the Nundinal character of their Januarius, the first Januarius of their calendar itself, was 5, as that of the first Januarius of Numa also, cycle i. 1 had been. The first Nundinal day then in each fell on the Nones of Januarius; and, as the

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* This circumstance of agreement between them explains the fact, in the history of the second body of Decemvirs, that though, between the time of their entering on office constitutionally on the Ides of May B. C. 449 and their beginning to retain office illegally on the Ides of May B. C. 448, the alterations above explained had already been made in the calendar; yet the Ides of May themselves are clearly supposed to have remained the same not only in terms but really. And that was actually the case. They must have fallen on May 31 B. C. 448 by the old calendar, continued until then; and they fell *de facto* on May 31 B. C. 448 in the new calendar also.

Nundinal incidence in the first year and in the first month of the cycle in each determined that in every other year and in every other month to the end of the cycle itself, it is manifest that there could be no difference between the two cycles in this respect, except what was purely accidental. A comparison of the two Types will shew what years had the same Nundinal character in each and what had not. The Nundinal epacts in the one are of course the same with those in the other; but in an inverted order: because the order of common and intercalary years in each respectively was inverted also.

vi. With regard to the intercalary rule of the two cycles; i. if the first year of the decemviral cycle was intercalary the last year of that of Numa must have been so too. And, if the length of the Merkedonius in any year of the last ogdoad of the cycle of Numa could not exceed 22 days, the Merkedonius in the first year of the decemviral cycle, the first in the order of that cycle in general, would be a month of 22 days. Consequently the next would be one of 23 days: and therefore with respect to the alternation of the Merkedonius, 22 and 23 days, not 23 and 22 days, in each, the rule of both cycles would agree*.

ii. The first of the uneven years being thus intercalary according to rule in the decemviral cycle, all the uneven years through the first two ogdoads at least must have been intercalary in that cycle, according to rule also. In the cycle of Numa the even years were intercalary according to rule, through the same two ogdoads. This therefore was a necessary distinction between the two cycles; that, for the first sixteen years in each, the even years were intercalary by rule in that of Numa, the odd years in that of the decemvirs.

iii. With respect to the last ogdoad or last eight years in each; if the first year of the decemviral cycle was intercalary by rule, the last must have been common: because two intercalary years could not come together one after the other. The 24th year then of the decemviral cycle was always common. The 24th of Numa's was always intercalary. But as the beginning of the first year of the former was virtually the end of the 24th of the latter, this does not argue any difference between the intercalary rule of each in the last ogdoad; but rather the contrary. The 23rd year of the cycle of Numa being common, and the 24th, down to the seat of Februarius at least, the 24th of the decemviral would be common also.

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* Both these facts are demonstratively proved of the decemviral cycle by the eclipse on the Nones of June B. C. 400 Cycle iii. 1 of the decemviral correction. For if that first year of the third cycle had not been intercalary, or if the amount of the intercalation had been more than 22 days, the solar eclipse of June 21 that year could not have fallen on the Nones of Junius in the Roman calendar the same year, as it actually did.

With respect to the other years of this last ogdoad in each; cases of intercalations are extant which prove that the 22nd year of the decemviral cycle was intercalary according to rule: and if so, the 21st of that of Numa which virtually corresponded to it. The 22nd year of the decemviral cycle being intercalary, and the first year also being intercalary, and these intercalary years in that cycle being three years complete asunder; the same fact must have held good of the two last intercalations in the cycle of Numa: one of which answered to this last one in the decemviral cycle and the other to the first. Consequently the first intercalation in the last ogdoad of the cycle of Numa must have been just three years before the second; as that was before the last. The 18th year of his cycle therefore was intercalary: and consequently the 19th in that of the decemvirs. In this decemviral cycle on the contrary the first intercalation in the last of its ogdoads would be in the 17th year of the cycle, answering to the 16th in that of Numa; which was by rule intercalary. The intercalations therefore in the last ogdoad of each of these cycles respectively, one compared with the other, stand as follows.

Comparative view of the Intercalary rule of the Cycle of Numa and of the Cycle of the Decemvirs respectively, through the last nine years of the former, and the last eight and the first of the latter.

Cycle of Numa.		*Cycle of the Decemvirs.*	
Year.	Days.	Year	Days.
xvi*	378	xvii*	377
xvii	355	xviii	355
xviii*	377	xix*	377
xix	355	xx	355
xx	355	xxi	355
xxi*	377	xxii*	377
xxii	355	xxiii	355
xxiii	355	xxiv	355
xxiv*	377	i*	377

Of course it will be understood that, when we say such and such a year of the decemviral cycle answered to such and such a year of that of Numa, we mean this only in reference to the beginning of the one and the end of the other. The beginning of every year in the decemviral cycle fell at the end of the preceding year in that of Numa; the beginning of the first of the former, for example, at the end of the twenty-fourth of the latter. And this distinction is very important to the seat of the intercalary month in the proper years of each, one compared with the other; for that was necessarily affected by it. In other respects, as the comparison of the Type of each with that of the other shews, the two cycles with some accidental differences easy to be taken into account were absolutely the same.

It thus appears that the changes introduced into the calendar of Numa by the Decemviral correction, (if correction it must be called,) extended only to the details not to the principles of the calendar; and even to the details to a very limited extent. It may be questioned however whether it did not alter the character of his calendar considered as a lunæsolar one of a particular kind, so as to make it a totally different thing. The most peculiar of the lunar arrangements of Numa was *this*, that the lunar character of every one of his months was 25, the lunar character of every one of his years was 25, and the lunar character of every one of his cycles was 25. Nor was this lunar character of 25 fixed upon at random; as we shall probably see hereafter. This peculiar feature of the old arrangements was entirely lost in the new; when the lunar character of the cycle, of the year, and of the month, on the same principle as before, became 4 instead of 25. Besides this, the change in the seat of the first intercalation from the second year of the cycle to the first was altogether at variance with the principle of any lunæsolar calendar whatsoever, which could never take an intercalation of 22 days into account in its first year; nor any intercalation of the proper amount earlier than the second or third year at least. This innovation therefore must have been the most calculated of all to interfere with the arrangements of Numa; to disturb the plan which he had laid down; and to impair the symmetry and proportion of every part of his calendar. Nor can we imagine any excuse for it but the accident of the time at which the decemviral correction was proposed and carried into effect; viz. at the end of the current cycle of Numa, when an intercalation had already become necessary by the law of the cycle, which nevertheless could be administered only along with the correction itself: that is, by transferring it from the last year of the cycle to the first*.

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* It is possible however that by the time of the Decemvirs, 264 years after the correction of the calendar by Numa, the civil year as regulated perpetually by his cycle had ceased to be regarded as a lunar year. The cycle of Numa was virtually the same as the octaëteric; which, as we have often had occasion to observe, was liable to an error of defect amounting to three days every two cycles, or every 16 years; and that must speedily make itself perceptible every where. This error indeed is corrected by the course of time itself, when it has accumulated to one full lunar month of 30 days. But this natural correction could not be administered by time alone in less than 160 years: and though one such period must already have elapsed between B. C. 712, the time of Numa, and B. C. 449, that of the Decemvirs; the ἀποκατάστασις of true mean lunar time and civil, so brought about, on the principles of his cycle, might escape observation at the time, because it did not fall out at the beginning of one of his cycles, but in the 17th year of that which was current at the time, viz. Cycle vii. 17 B. C. 552. In the 103 years, which had

SECTION XII. — *On the probable motive to the Decemviral Correction. Comparison of the Roman and of the Attic Calendar before and after the Correction.*

We shall conclude this account of the Decemviral correction of the calendar of Numa with some conjectures respecting the motives which might have been instrumental in bringing it to pass; and the end which in all probability was proposed by it. No reason has been any where assigned for it. Yet the change made by it in the calendar was one which materially affected its details, if not its fundamental principles; and one which did not very well square with the harmony, symmetry, and relations of its several parts, as they had been originally arranged by its own author: especially in the removal of the intercalary month from its natural seat at the end of the calendar to the beginning; a position by no means so proper for it.

At first sight therefore this correction of the calendar of Numa appears to have been not only uncalled for and unnecessary, but arbitrary and even capricious; as if from the mere desire of change it had wantonly tampered with that which was before as perfect of its kind as it could be, and might be made worse by innovation but could not be rendered better. Yet we may take it for granted that there must have been some reason for it; and in all probability a sufficient reason: competent at least to justify the Decemvirs in proposing it and the people of Rome in adopting it; though both from principle and from habit each of them might be tenacious of old institutions and usages, and averse to change on its own account. And albeit, at this distance of time, we are left to conjecture for the discovery of this reason; yet, if we mistake not, a comparison of the Roman calendar with the Athenian of the time being both before and after the correction will be found to throw some light upon it.

The epoch of the calendar of Numa was the Kalends of

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subsequently elapsed from B. C. 552 to B. C. 449, the error of defect was again fast approaching to its maximum; and B. C. 449 could have been little less than 20 days. Under those circumstances the calendar at that time could not possibly have been regarded as lunar, except nominally.

Januarius February 17 B. C. 712: that of the calendar of Solon was Gamelion 1 January 19 B. C. 592. The distance of the latter from the former was 120 years: five cycles of Numa exactly. The sixth Εἰκοσιτετραετηρὶς of Numa and the first Ὀκταετηρὶς of Solon consequently began together B. C. 592. From B. C. 592 to B. C. 448 the interval would be 144 years, = six cycles of 24 years, and eighteen cycles of 8 years, respectively. The xiith cycle of Numa therefore and the xixth cycle of Solon would both begin together B. C. 448.

Let us therefore compare the Roman calendar in this first year of the xiith cycle of Numa and the Athenian in this first year of the xixth cycle of Solon. We must begin for that purpose with the month Anthesterion in the latter, as properly answering to the month Januarius in the former.

Athenian Calendar.
Cycle xix. 1.

Roman Calendar of Numa.
Cycle xii. 1.

Months.	Days.		Midnight.	B. C.	Months.	Days.		Midnight.
ii	30	Anthesterion	Feb. 17	448	i	29	Januarius	Feb. 17
iii	29	Elaphebolion	Mar. 19		ii	31	Martius	Mar. 18
iv	30	Munychion	April 17		iii	29	Aprilis	April 18
v	29	Thargelion	May 17		iv	31	Maius	May 17
vi	30	Skirrhophorion	June 15		v	29	Junius	June 17
vii	29	Hekatombæon	July 15		vi	31	Quinctilis	July 16
viii	30	Metageitnion	Aug. 13		vii	29	Sextilis	Aug. 16
ix	29	Boëdromion	Sept. 12		viii	29	Septem.	Sept. 14
x	30	Pyanepsion	Oct. 11		ix	31	October	Oct. 13
xi	29	Mæmacterion	Nov. 10		x	29	Novem.	Nov. 13
xii	30	Posideon	Dec. 9	B. C.	xi	29	Decem.	Dec. 12
i	29	Gamelion	Jan. 8	447	xii	28	Februa.	Jan. 10

It is evident that there is as close an agreement between these two calendars for the whole of the year supposed to be common to both as from the nature of the case was possible. The only material circumstance of distinction between them is that, as both stand in the above comparison, Januarius the first month in the Roman is ἀντίστοιχος to Anthesterion the second in the Athenian; and Gamelion the first month in the Athenian is ἀντίστοιχος to Februarius the last in the Roman.

Let us now proceed to compare the Roman calendar after the correction with the Athenian also; and in the first year later than the correction which could be said to have been common to both all through: the second of the decemviral correction, B. C. 447, not the first, B. C. 448.

Athenian Calendar. Cycle xix. 2.					*Decemviral Calendar.* Cycle i. 2.			
Months.	Days.		Midnight.	B. C.	Months.	Days.		Midnight.
i	29	Gamelion	Jan. 8	447	i	29	Januarius	Jan. 10
ii	30	Anthesterion	Feb. 6		ii	28	Februa.	Feb. 8
iii	29	Elaphebolion	Mar. 8		iii	31	Martius	Mar. 8
iv	30	Munychion	April 6		iv	29	Aprilis	April 8
v	29	Thargelion	May 6		v	31	Maius	May 7
vi	30	Skirrhophorion	June 4		vi	29	Junius	June 7
vii	29	Hekatombæon	July 4		vii	31	Quinctilis	July 6
viii	30	Metageitnion	Aug. 2		viii	29	Sextilis	Aug. 6
ix	29	Boëdromion	Sept. 1		ix	29	Septem.	Sept. 4
x	30	Pyanepsion	— 30		x	31	October	Oct. 3
xi	29	Mæmacterion	Oct. 30		xi	29	Novem.	Nov. 3
xii	30	Posideon	Nov. 28	B. C.	xii	29	Decem.	Dec. 2
i	29	Gamelion	Dec. 28	447	i	29	Januarius	Dec. 31

The agreement of these two schemes with each other is as complete in this instance also as from the nature of the case was possible: and the inconsistency before discoverable, between the seat of Januarius or Februarius in the one and that of Gamelion or Anthesterion in the other, no longer appears Januarius in the Roman calendar, cycle i. 2, and Gamelion in the Attic, cycle xix. 2, are now ἀντίστοιχοι; and Februarius in the former and Anthesterion in the latter are the same. Now the rectification of this anomaly, (though it is to be called an anomaly solely on the supposition that there ought to have been an exact relation between the Roman calendar and the Attic in the order of these two months in each respectively, as well as in that of the rest,) was purely the effect of the change in the calendar of Numa made by the Decemviral correction; when it transposed Februarius from the twelfth place in the order of the months to the second. Such then having been clearly the effect of the correction, viz. to remove the only anomaly previously existing between the civil Roman calendar for the time being and the Athenian; we consider it a very probable conjecture that what is thus seen to have been the result of the correction was the object proposed by it: viz. That the Roman calendar for the time being might thereby be assimilated to the Attic, and might begin and proceed from the date of the correction conjointly with the Attic; subject only to some accidental variations which could not exceed certain limits. And this conjectural explanation of the end proposed by the correction in general may be further confirmed by the reasons which probably influenced its authors in changing the place of Februarius in particular.

SECTION XIII.—*On the probable motives to the change of the place of Februarius made by the Decemviral Correction.*

As the calendar was standing B. C. 449 previously to the correction, Februarius answered to Gamelion; as it stood immediately after the correction, B. C. 448, it corresponded to Anthesterion. Now it has been seen[x] both from the etymon of the name of this month and from the nature of the ceremonies appropriated to it that it must have been the lustral or piacular month of the Roman calendar; the month sacred to the Dii Manes or Inferi, to the memory of the dead, and to such rites and observances as arose out of that relation. In like manner if there was any month in the Attic calendar, which stood in the same kind of relation, and derived from it the same kind of character, it was the month Anthesterion. There was an ancient tradition among the Athenians that the flood of Ogyges, or at least the flood of Deucalion, had fallen out in this month[y]; and this month was considered sacred to the Manes or memory of the dead, on that very account. The ἡμέραι ἀποφράδες of the Attic calendar, the μιαραὶ ἡμέραι, fell out in this month; and these answered to the Feralia of the Roman calendar, which fell out in Februarius. And as the μιαραὶ ἡμέραι of the Attic calendar began on the 13th of Anthesterion, so did the Feralia of the Roman on the 13th of Februarius *.

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[x] Supra p. 186. Diss. iii. ch. i. sect. v.

[y] See our Fasti Catholici, ii. 106. Diss. ix. ch. iv. sect. xi.

* The term χοὴ or χοαὶ in Greek, though properly denoting merely *libation* or *libations*, is almost generally restricted to such particular libations as were offered to the dead: Χοαὶ αἱ χεόμεναι τοῖς νεκροῖς σπονδαί[1]—Χοαὶ λέγονται ἐπὶ τῶν νεκρῶν[2]—Χοὰς ἃς ἔθος τοῖς νεκροῖς πέμπεσθαι[3]—Χοὰς δὲ ὡς τιμὰς, ἐκχύσεις, ἐναγίσματα ἐπὶ νεκροῖς, ἢ σπονδάς· ἐκπίπτει δὲ χρησμὸς δεῖν χοὰς τοῖς τεθνεῶσιν ἐπάγειν ἀνὰ πᾶν ἔτος, καὶ ἑορτὴν Χόας ἄγειν. λέγονται καὶ θυσίαι νεκρῶν[4]—

Διὰ ταῦτα γάρ τοι καὶ καλοῦνται μακάριοι·
πᾶς γὰρ λέγει τις Ὁ μακαρίτης οἴχεται·
κατέδαρθεν. εὐδαίμων. ὅτ' οὐκ ἀνιάσεται·
καὶ θύομέν γ' αὐτοῖσι τοῖς ἐναγίσμασιν
ὥσπερ θεοῖσι, καὶ χοάς γε χέομεν,
αἰτούμεθ' αὐτοὺς δεῦρ' ἀνιέναι τἀγαθά[5].

Εὖ τ' ἂν σφιν ἐτήσια χύτλα χέωνται[6]—

Χύτλα· κυρίως τὰ μεθ' ὕδατος ἔλαια. καταχρηστικῶς δὲ ὡς ἐνταῦθα τὰ ἐναγίσματα καὶ αἱ χοαί[7]—Ἐναγίζειν· τὸ χοὰς ἐπιφέρειν ἢ θύειν τοῖς κατοιχομένοις[8]— Χθόνια λουτρά· τὰ τοῖς νεκροῖς ἐπιφερόμενα. ἐκόμιζον γὰρ ἐπὶ τοὺς τάφους λουτρά[9]— Εὔδειπνος . . . καὶ αἱ τοῖς νεκροῖς ἐπιφερόμεναι σπονδαὶ, ἤγουν πνοαί (χοαί)[10]— Χοή . . . οἱ γὰρ ἀρχαῖοι ἅπερ εἶχον κάλλιστα καὶ τιμιώτατα ἔρραινον εἰς τοὺς νεκροὺς τιμῶντες αὐτούς[11].

The Parentalia in the Attic calendar had a stated time and date. The general name for the days devoted to that purpose was that of the ἀποφράδες ἡμέραι, ἡμέραι ἀπόπομποι, or the like. Ἀποφράδες ἡμέραι· ἐν αἷς τοῖς κατοιχομένοις χοὰς ἐπιφέρουσι[12]— Ἀποπομπαὶ ἡμέραι (corrige Ἀπόπομποι ἡμέραι) ἐν αἷς θυσίαι ἐτελοῦντο τοῖς πομπαίοις θεοῖς[13]— Ἀποπόμπιμοι· αἱ ἀποφράδες ἡμέραι[14]. On such days nothing else could be attended to: Καὶ διὰ τοῦτο ὡς ἔοικεν οἱ τὰς ἑορτὰς καταστησάμενοι καὶ ἀποφράδας ἐποίη-

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[1] Scholia ad Orestem, 96. *Matthiæ*.

[2] Ibid. ad 1180.

[3] Ibid. ad 1307: cf. ad 113: 125: 472: 1306. Ad Phœnissas, 933: Iphigeniam in Tauris, 44–60: 61: 156. Helenam, 1403, 1404. Electram, 90–92: 505–511: 540. 541. Æschylus, Persæ, 219, 220: 521–524: 607–621. Choëphori, 14: 22: 84–100: 109: 515–539. This play takes its name from the mission of Χοαὶ to the tomb of Agamemnon.

[4] Schol. ad Aristoph. Acharn. 960. Εἰς τοὺς χόας. A quotation follows from Sophocles, Œd. Col. 469–472. The beginning of the scholium shews that the time of these χοαὶ was in Anthesterion. Cf. Suidas also, in χοάς.

[5] Aristophanes, Ταγηνισταί. Apud Stobæum, Titulus cxxi. 18.

[6] Apollonius Rhod. i. 1075.

[7] Scholia in loc. Cf. ad ii. 926–929: iv. 707. 708.

[8] Hesychius, in voce.

[9] Ibid.

[10] Ibid.

[11] Etymolog. Magnum in χοή Cf. Plato, Pars i. vol. ii. 254. 9. Minos: Scholia, ii. 452. (De Legibus, vii. 26. 11. Pars iii. vol. iii. 26.)

[12] Suidas, in voce.

[13] Hesychius.

[14] Ibid.

It is therefore an extremely probable conjecture that one motive, (and perhaps the only motive,) which prompted the

σαν, ἐν αἷς τὰ μὲν ἤργει τῶν ἱερῶν τὰ δὲ ἐκλείετο[15]. They were also called *Ἀνθρώπειοι*: *Ἀνθρωπείους ἡμέρας τὰς ἀποφράδας Ῥόδιοι*[16]—*Ἄνθρωπος*, (lege *Ἀνθρώπειος*,) *ἀποφράς· ἀποφράδες ἡμέραι καθ' ἃς ἀπηγόρευτό τι πράττειν*[17]—*Μεταφέρουσι δὲ τὴν λέξιν καὶ ἐπὶ τοὺς πονηρούς*[17].

According to Hesychius these days were seven in number. *Ἀποφράδες· ἡμέραι ἑπτὰ οὕτως ὀνομαζόμεναι ἐν αἷς ἐναγίζουσι τοῖς νεκροῖς*[18]. And it is clearly to be inferred that among the Athenians they made part of the month Anthesterion; because they were also called *Μιαραὶ*, and the *Μιαραὶ ἡμέραι* made part of that month. *Ἀποφράδες· αἱ ἐναγεῖς καὶ μιαραὶ ἡμέραι καὶ μέλαιναι*[19]—*Ἀποφράδες ἡμέραι· ἐν αἷς τοῖς κατοιχομένοις χοὰς ἐπιφέρουσιν· ἢ αἱ πρὸς πράξεις ἀνεπιτήδειοι· ἢ μιαραὶ ἡμέραι μάλιστα, ἐν αἷς τὰ ἐναγίσματα*[20]—*Μιαραὶ ἡμέραι· τοῦ Ἀνθεστηριῶνος μηνὸς, ἐν αἷς τὰς ψυχὰς τῶν κατοιχομένων ἀνιέναι ἐδόκουν*[21]—*Μιαρὰ ἡμέρα· ἐν τοῖς Χουσὶν, Ἀνθεστηριῶνος μηνὸς ἐν ᾧ δοκοῦσιν αἱ ψυχαὶ τῶν τελευτησάντων ἀνιέναι*, (what follows is corrupt,) . . . . *ῥάμνῳ ἕωθεν ἐμασῶντο καὶ πίττῃ τὰς θύρας ἔχριον*[22]—*Ῥάμνος· φυτὸν ὃ ἐν τοῖς Χουσὶν ὡς ἀλεξιφάρμακον ἐμασῶντο ἕωθεν, καὶ πίττῃ ἐχρίοντο τὰ σώματα· ἀμίαντος γὰρ αὕτη. διὸ καὶ ἐν ταῖς γενέσεσι τῶν παιδίων χρίουσι τὰς οἰκίας εἰς ἀπέλασιν τῶν δαιμόνων*[23]—*Θύραζε Κᾶρες . . . τινὲς δὲ οὕτως τὴν παροιμίαν φασί·*

Θύραζε κῆρες· οὐκέτ' Ἀνθεστήρια.

ὡς κατὰ τὴν πόλιν τοῖς Ἀνθεστηρίοις τῶν ψυχῶν περιερχομένων[24].

The connection of these ceremonies and of this season with the destruction of human life on a great scale by the waters of a deluge is intimated in the following allusions. *Αἴγλη . . . καὶ ἡ θυσία δὲ ἡ ὑπὲρ τοῦ κατακλυσμοῦ εἰς Δελφοὺς ἀπαγομένη Αἴγλη ἐκαλεῖτο*[25]—*Ἀφέσιος Ζεύς·* so called because Deucalion *Εἰς τὴν ἄκραν τῆς Ἀργοῦς διασωθεὶς ἱδρύσατο βωμὸν Ἀφεσίου Διός*[26]—*Ὑδροφορία· ἑορτὴ πένθιμος Ἀθήνησιν ἐπὶ τοῖς ἐν τῷ κατακλυσμῷ ἀπολομένοις, ὡς Ἀπολλώνιος*[27]—*Θεόπομπος τοὺς διασωθέντας ἐκ τοῦ κατακλυσμοῦ ἑψῆσαί φησι χύτραν πανσπερμίας· ὅθεν οὕτω κληθῆναι τὴν ἑορτὴν* (*Χύτρους*) *καὶ θύειν τοῖς Χουσὶν Ἑρμῇ χθονίῳ· τῆς δὲ χύτρας οὐδένα γεύσασθαι. τοῦτο δὲ ποιῆσαι τοὺς περισωθέντας ἱλασκομένους τὸν Ἑρμῆν καὶ περὶ τῶν ἀποθανόντων. ἤγετο δὲ ἡ ἑορτὴ Ἀνθεστηριῶνος τρίτῃ ἐπὶ δέκα, ὡς Φιλόχορος*[28]—*Ἐν μιᾷ ἡμέρᾳ ἄγονται οἵ τε Χύτροι καὶ οἱ Χόες ἐν Ἀθήναις, ἐν ᾗ*

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[15] Sallustius, De Diis et Mundo, xviii. Opuscula Myth. 276.

[16] Hesychius. Cf. Plato, Pars iii. vol. iii. 26. 9-14. De Legibus, vii.

[17] Anecdota Græca, i. 5. l. 8. *Bekkeri.*

[18] Hesychius, *Ἀποφράδες*. Cf. Lucian, iii. 161. Pseudologista, 1: 172. 11. 12. 13.

[19] Anecdota Græca, i. 204. 31.

[20] Ibid. 438. 31. Cf. Suidas, *Ἀποφράδες*.

[21] Hesychius, In voce.

[22] Photius, Lexicon, 269. l. 21.

[23] Ibid. 482. l. 8.

[24] Ibid. 97. Cf. Suidas, *Θύραζε κᾶρες*.

[25] Anecdota, i. 354. 15.

[26] Etymologicum Magnum. Cf. also in *Βούκαια*.

[27] Photii Lexicon, 615. Cf. Etymologicum in *Ὑδροφορία*.

[28] Scholia ad Aristoph. Acharn. 1075. Cf. Suidas, *Χύτροι*.

Decemviral correction of the arrangements of the calendar of Numa, was to put the Roman Februarius on a par with the

πᾶν σπέρμα εἰς χύτραν ἑψήσαντες θύουσι μόνῳ τῷ Διονύσῳ καὶ Ἑρμῇ. οὕτω Δίδυμος[28]—*Χύτροι ἑορτὴ παρ' Ἀθηναίοις· ἄγεται δὲ παρὰ ταύτην τὴν αἰτίαν, ἣν καὶ Θεόπομπος ἐκτίθεται γράφων οὕτως· Διασωθέντας οὖν τοὺς ἀνθρώπους ᾗπερ ἐθάρρησαν ἡμέρᾳ τῷ ταύτης ὀνόματι προσαγορεῦσαι καὶ τὴν ἑορτὴν ἅπασαν. ἔπειτα θύειν αὐτοῖς (τοῖς Χουσὶν) ἔθος ἔχουσι τῶν μὲν Ὀλυμπίων θεῶν οὐδένι τὸ παράπαν, Ἑρμῇ δὲ χθονίῳ· καὶ τῆς χύτρας ἣν ἕψουσι πάντες οἱ κατὰ τὴν πόλιν οὐδεὶς γεύεται τῶν ἱερέων. τοῦτο δὲ ποιοῦσι τῇ ἡμέρᾳ (ἐν ᾗ) καὶ τοὺς τότε παραγενομένους (περιγενομένους) ὑπὲρ τῶν ἀποθανόντων ἱλάσασθαι τὸν Ἑρμῆν*[*]. *ἤγοντο δὲ ἀγῶνες αὐτόθι οἱ χύτρινοι καλούμενοι καθά φησι Φιλόχορος ἐν τῇ ἕκτῃ τῶν Ἀτθίδων*[29]— *Ἑλεῖν δὲ τὰς Ἀθήνας αὐτός φησιν ἐν τοῖς Ὑπομνήμασι Μαρτίαις καλάνδαις, ἥτις ἡμέρα συμπίπτει μάλιστα τῇ νουμηνίᾳ τοῦ Ἀνθεστηριῶνος μηνὸς, ἐν ᾧ κατὰ τύχην ὑπομνήματα πολλὰ τοῦ διὰ τὴν ἐπομβρίαν ὀλέθρου καὶ τῆς φθορᾶς ἐκείνης δρῶσιν, ὡς τότε καὶ περὶ τὸν χρόνον ἐκεῖνον μάλιστα τοῦ κατακλυσμοῦ συμπεσόντος*[30].

The length of the period then, assigned to these days at Athens, according to Hesychius, was seven days. The duration of the Flood of Deucalion was nine days; according to the Hellenic tradition on that point at least. *Δευκαλίων δὲ ἐν τῇ λάρνακι διὰ τῆς θαλάσσης φερόμενος ἐφ' ἡμέρας ἐννέα καὶ νύκτας ἴσας τῷ Παρνασσῷ προσίσχει, κἀκεῖ τῶν ὄμβρων παῦλαν λαβόντων ἐκβὰς θύει Διῒ Φυξίῳ*[31]. We may conclude notwithstanding, on the authority of Hesychius, that the proper duration of the Ἡ*μέραι μιαραὶ* was seven days[†].

Now it seems to have been understood in later times that the proper seat of these Μ*ιαραὶ ἡμεραὶ* of the Greek calendar in the Roman calendar was the month of February. The scholiast on Lucian observes[32]; Ἦ*σαν παρ' Ἕλλησιν ἡμέραι . . . ἃς ἀποφράδας ἐκάλουν. ἐν ταύταις οὐδὲ προσεῖπεν ἄν τίς τινα, οὐδὲ καθάπαξ φίλος ἐπεμίγνυτο φίλῳ, ἀλλὰ καὶ τὰ ἱερὰ ἀχρημάτιστα ἦν αὐτοῖς. ἐτελεῖτο δὲ ταῦτα αὐτοῖς κατὰ τὸν Φευρουάριον μῆνα, ὅτε καὶ ἐνήγιζον τοῖς καταχθονίοις· καὶ πᾶς οὗτος ὁ μὴν ἀνεῖτο τοῖς κατοιχομένοις, μετὰ στυγνό-*

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[28] Scholia, loc. cit.

[*] Theopompus indeed was much later than the visit of the Romans to Greece, B. C. 453–450. He was a disciple of Isocrates; and as Photius tells us (Codex, 176. 120. l. 25.) was 45 years of age B. C. 324, when Alexander commanded the people of Chios to recall him from banishment. But he is merely the recorder in this instance of an ancient tradition, generally believed in his time.

[29] Scholia ad Aristoph. Ranas, 220.

[30] Plutarch, Sulla, xiv.

[31] Apollodorus, Bibliotheca, i. vii. 2. Cf. Scholia, ad Iliad. A. 126. *λαούς*. Eustathius, ad Iliad, i. 21. 30 = 23. The *Φύξιος Ζεὺς* is recognized also, Scholia ad Apollonium Rhodium, iv. 699.

[†] On that principle, they lasted from Anthesterion 13—19 both inclusive: and the 18th and 19th of that month would be two of them every year. Proclus, on Hesiod, (Dies, 808,) remarks from Philochorus that the 18th and 19th of the month were reckoned among the *ἡμέραι* devoted at Athens to *καθαρμοὶ* and *ἀποτροπαί*. We do not know that that was the case with the 18th and 19th of every month in the Attic calendar. But it was quite sufficient to produce such a gloss that it was so with the 18th and 19th of Anthesterion.

[32] Opp. i. 155. Timon, 43. 5: *Καὶ εἴ τινα ἴδω μόνον ἀποφρὰς ἡ ἡμέρα.*

Attic Anthesterion. It was not considered proper for some reason or other that the month consecrated to the Dii Manes

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τητος πάντων προϊόντων, καὶ (οὐχ) ἕτερον τρόπον (ἢ) ὃν καὶ τὰ Διάσια * στυγνάζοντες ἦγον Ἀθηναῖοι.

On this principle that which properly corresponded to this term of days in the Roman calendar was the Feralia. The Feralia are dated by Lydus[33] from the Ides of February to the ix Kalendas Martias, February 13 to 21 both inclusive: Εἴδοις Φεβρουαρίαις· ἀπὸ ταύτης τῆς ἡμέρας ἀπὸ ὥρας ἕκτης διὰ τὰς τῶν κατοιχομένων χοὰς τὰ ἱερὰ κατησφαλίζοντο καὶ οἱ ἄρχοντες ἐν σχήματι ἰδιωτῶν προῄεσαν ἄχρι τῆς πρὸ ὀκτὼ καλανδῶν Μαρτίων. In dating their last day ix Kal. Martias Lydus is confirmed by the Maffæan and the Farnesian calendar[34]; and as we may probably see hereafter by Cicero. Ovid in his Fasti notices the Feralia only in reference to the xi Kal. Martias, February 19 Roman; which he calls their last day †.

Hanc quia justa ferunt dixere Feralia lucem:
Ultima placandis manibus illa dies[35].

Yet this too implies that they must have been going on some days before; and therefore might have begun on the Ides. On this principle, according to Ovid, they lasted seven days; from February 13 to February 19 both inclusive: according to Lydus, they lasted nine; from February 13 to February 21 both inclusive. The former would be exactly agreeable to the Greek rule, with respect to the Μιαραὶ ἡμέραι, from Anthesterion 13 inclusive to Anthesterion 19 inclusive also.

The first celebration of the Feralia, according to Ovid's account, was to be traced up to the obsequies solemnized by Æneas, after his coming into Italy, in honour of his father's genius[36]; for which statement whether there was any foundation in the matter of fact we do not undertake to say. He adds however that in the course of time, and because the Republic was occupied by wars, this annual ceremony in honour of the dead came to be neglected.

At quondam dum longa gerunt pugnacibus armis
Bella parentales deseruere dies.

* Of the Diasia, cf. the same Scholia ad Opp. i. 113. Timon, 7. 15. The date of the Διάσια too in the Attic calendar appears to have been the 23rd of Anthesterion, Μηνὸς Ἀνθεστηριῶνος ἡ φθίνοντος: Scholia ad Aristoph. Nubes, 407: though there is some confusion between this ceremony and that of the Διϊπόλια or Διοπόλεια, the proper date of which was the 14th of Skirrhophorion: Scholia ad Arist. Pax, 418 and 419.

[33] De Mensibus, iv. 24. 64. 6.

[34] Apud Foggini.

† Nec tamen hæc ultra quam tot de mense supersint
Luciferi quot habent carmina nostra pedes. ii. 567.

The number of feet in an elegiac couplet is of course eleven: and this mode of designating the calendar date of the Feralia must suppose it to have been xi Kal. at least: from which inclusive to the Kalends of March inclusive the interval would be eleven days.

[35] ii. 569. Cf. 267 : 453 : 457 : 475.

[36] Ibid. 533–546.

in the Roman calendar should be the twelfth in that, while the month similarly consecrated in the Attic calendar was

> Non impuue fuit. nam dicitur omine ab isto
>   Roma suburbanis incaluisse rogis.
>
> * * * *
>
> Post ea præteriti tumulis redduntur honores
>   Prodigiisque venit funeribusque modus[37].

It does not appear to us that this explanation of the first institution of the Feralia, and of their subsequent intermission, is satisfactory. A ceremony as old as the time of Æneas was not likely to be forgotten or to fall into desuetude; and a time of long-continued warfare, entailing so much greater a loss of life every year than usual, was much better adapted to keep the Romans constantly in mind of their duty to the dead than to make them forget it. We strongly suspect that the true explanation of the fact was something of which Ovid himself does not seem to have been aware; viz. that the Feralia, attached to the seven days in the month of Februarius among the Romans, from the 13th to the 19th, were really not an ancient ceremony, nor even derived from Numa, much less from Æneas: That they were in fact no older than the Decemviral correction; and that they were instituted by the Decemvirs, for the same reason which made them transpose the month of Februarius itself: viz. in order that they might correspond to the Parentalia of the Attic calendar; and therefore that they were purposely attached to the same dates in Februarius as those were in Anthesterion. An institution which was not older than the second body of Decemvirs, and had no authority except their sanction, in the course of time might very possibly fall into comparative neglect or oblivion. Numa's Parentalia strictly speaking were the Lemuria; and we read nowhere of any intermission in the observance of them.

Supposing however the fact of a formal institution of the Feralia some time or other before, and yet of their having fallen more or less into desuetude afterwards, we observe that the reason assigned by Ovid for their revival was a pestilence, and certain other prodigies resolvable into the anger of the Dii Manes.

> Vix equidem credo: bustis exîsse feruntur
>   Et tacitæ questi tempore noctis avi.
> Perque vias urbis Latiosque ululâsse per agros
>   Deformes animos vulgus inane ferunt[38].

The mystery relating to these things is cleared up by Augustin[39]; Instaurati sunt ex auctoritate librorum Sibyllinorum ludi sæculares quorum celebritas intra centum annos fuerat instituta, felicioribusque temporibus memoria negligenter perierat. renovarunt etiam Pontifices ludos sacros inferis, et ipsos abolitos annis retrorsum melioribus. By comparing this statement with Livy[40], and with the Scholia on the Carmen Sæculare the second in that. The only question will be what this reason could be? or why the order of the Attic calendar in

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[37] Fasti, ii. 547. [38] Ibid. 551. [39] De Civitate, iii. 18. [40] Epitome, xlix.

of Horace, and with the above passage from Ovid's Fasti, we collect that the event intended must have happened in the consular year of P. Claudius Pulcher L. Junius Pullus, U. C. 505 of Varro, B. C. 249–248 in the first Punic war; and that in this year, for the reasons assigned, (a pestilence and certain other prodigies,) by direction of the Sibylline books the Ludi Sæculares were celebrated, and the Feralia which had fallen into desuetude were revived.

Now B. C. 248*, cycle ix. 9 of the regular Decemviral calendar, the kalends of Februarius were falling February 4. B.C. 447, as the scheme proposed supra shews, Anthesterion 1 fell upon February 6. There was consequently two days' difference between the kalends of February B. C. 248 and the first of Anthesterion B.C. 447. If the rule of the Feralia was to be restored this year, B. C. 248, it was natural for the pontiffs to go back to the year of the institution, B. C. 447; and to their proper date at that time, Anthesterion 13–19, from which they were taken: and, as they found two days' difference between Anthesterion 13 B. C. 447 and the Ides of Februarius B. C. 248, it was not less natural for them to appoint that the Feralia, B. C. 248, should begin as at first on the Ides of Februarius, but should last two days longer than they had done at first: in order that they might end on the 19th of Anthesterion as they had done at first. From this time forward then their proper beginning was the Ides of Februarius as before; but their termination was the ix Kalendas Martias: and their entire duration was nine days instead of seven. By these means we reconcile Ovid to our other testimonies. It will now be understood that both are in the right; only that Ovid speaks of the original rule which made the length of the ceremony seven days, and the rest, of the rule which had superseded it, and made its duration *de facto* nine days. And yet even according to Ovid the Charistia or Caristia took up the Feralia without any delay; and they were attached to February 22 Roman; on which principle the Feralia must have ended on the 21st.

Proxima cognati dixere Caristia cari,
  Et venit ad socias turba propinqua dapes.
Scilicet a tumulis et qui periere propinquis
  Protinus ad vivos ora referre juvat[41].

The xi Kal. Martias then or February 19 Roman might be as he represents it the Ultima dies placandis manibus, agreeably to the old rule; and yet the ceremony of the Feralia in general might not be over before the ix Kal. Martias, two days later.

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* We assume this year, not B.C. 249, cycle ix. 8, because the consular years at this time bore date on the Ides of March. Consequently the Feralia, in the consular year of Claudius Pulcher and Junius Pullus, would be those of B. C. 248, not B. C. 249.

[41] ii. 617–638.

that respect should have been preferred to that of the Roman? And the answer to this question, it appears to us, may be partly That the same deference to the superior wisdom of Solon, which had induced the Romans of this time to send to Athens, on purpose to borrow his code of laws and thereby to improve their own, might make them prefer the arrangements of his calendar to those of their own, on any point upon which they appeared to differ; partly be-

It remains only to observe that if the Feralia were really introduced into the calendar B. C. 448, and were attached to two such fixed terms as the Idus of Februarius and the xi Kal. Martias, the Lupercalia must have been included in them; for the date of the Lupercalia never was any thing but the xv Kal. Martias, February 15 Roman [42]. Now the Lupercalia too, according to Augustin [43], were believed to have had some reference to the tradition of the Flood. They could not therefore be out of place even in the midst of the μιαραὶ ἡμέραι *.

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[42] Ovid Fasti, ii. 267–452. Maffæan and Farnesian calendar, apud Foggini. Cf. Festus, vi. 145. 2 Februarius : xv. 414. 11. Quinctiliani Luperci.

[43] De Civitate, xviii. 12.

* The above explanations proceed on the assumption that the Feralia of the Roman calendar, as attached to their recognized date, February 13 to February 19 or 21 Roman, were an institution of the Decemvirs, not one of Numa's. And this assumption is no more than necessary to account for the facts on record connected with them. It is very observable that, among the testimonies produced supra 186 to the etymon of Februarius, the most authentic derived it from the ceremony of the Februatio; which was no doubt an institution of Numa's: and the proper time of this ceremony in the course of the month they represented to be that of the Lupercalia; which too were older than Numa. There was no distinct mention in those testimonies of the Feralia, the ceremony properly so called, peculiar to February. And yet we consider it probable that there was always a ceremony in this month, and of the appointment of Numa, which went by that name; though not attached as yet to the whole of this interval from the 13th to the 19th of the month: but to some time between the two.

The name of this ceremony Feralia has been no where satisfactorily explained. Varro, De Lingua Latina, v. 56: Feralia ab infereis et ferendo: quod ferunt tum epulas ad sepulcrum quibus jus ibi parentare—Festus, vi. 146. 8: Feralia, diis manibus sacrata festa, a ferendis epulis vel a feriendis pecudibus appellata. Ovid Fasti, ii. 569,

Hanc quia justa ferunt dixere Feralia lucem.

But the first syllable in Feralia is long: if derived a *ferendo*, it must have been short. Were the truth known about this term, it would probably be found to have come from the languages of the North; to have been derived from some such word as our own Anglo-Saxon one of *fear;* which in Latin would be *feara* or *fēra*, and would give birth to such an epithet as *Feralis*, *of* or *belonging to fear:* like Brumalis from bruma, Vestalis from Vesta. The proper meaning of the rites called by this name of Feralia therefore would be *The ceremonies of Fear*. And we might justly infer from such a name that they must have been as old as the time of Numa, and even older; and might have a special reference to such an event as that of the general destruction of human life by the Deluge: and to such an occasion as that of the general Parentalia in behalf of the dead, rendered necessary by such a catastrophe.

cause, if Februarius and Anthesterion were really the months consecrated to the services of the dead in their respective calendars from their connection with any such event as the destruction of human life on a large scale by the deluge, the arrangements of the Attic calendar were truly to be preferred to those of the Roman in that one respect. For the Deluge of Scripture did truly happen in the second month of the Primitive calendar; and the Anthesterion of Solon did truly coincide with the second primitive month B.C. 592, and might be considered truly to represent it ever after. The Februarius of Numa did certainly coincide with the same season in general, B.C. 712; but not with the second primitive month at that time in particular: for it was then represented by his Martius. Hellenic tradition must undoubtedly have perpetuated the memory of the Deluge down to the time of Solon and beyond it. It could not otherwise have spoken of a flood of Ogyges, and of a flood of Deucalion; nor have connected either with the month Anthesterion. Italic tradition might have perpetuated it also. But though the Roman deputies had known nothing of such a tradition, before their visit to Greece, yet if they were at Athens in the month Anthesterion, and made it their business to inquire into the reasons of every thing which they might see to have been done in that month; they must have become acquainted with it there: and if so, they could not fail to draw the inference that, if the proper piacular month for such reasons was the second in the Athenian calendar, it ought for the same reasons to be the second in their own.

SECTION XIV.—*On the doubts which have been entertained of the visit of Roman Deputies to Greece.*

It is true that in proposing this explanation of the probable motives to the Decemviral correction of the calendar of Numa, we take for granted the visit of the Roman deputies to Greece and especially to Athens; about which doubts have been entertained and expressed in modern times. It is to be hoped however that even the explanation just proposed may contribute in no small degree to the removal of such doubts: for in whatsoever degree the actual effect of the Decemviral correction, in assimilating the Roman to the

Athenian calendar in the only circumstance in which they were differing previously, is to be ascribed to design not to accident; to the same degree it will be certain that the authors of that correction must have been as well acquainted with the Attic calendar of the time being as with their own. And whence did they derive that knowledge of it except from a previous visit to Greece?

It is difficult however to discover on what reasonable grounds the modern scepticism, respecting such a matter of fact as this, can be justified. It is opposed to the unanimous testimony of Roman antiquity. Nor is there any antecedent improbability in the fact itself. On the contrary, if the Romans had long felt the want of a fixed body of law, and had actually at this time conceived the design of supplying that desideratum; what was more natural, what was more obviously the dictate of common sense, or what was more in character with the gravity and importance of the thing proposed to be done, than that they should first of all send proper persons to collect the best laws, wheresoever they were to be found? It is certain that the Twelve Tables did embody a great many of the laws and constitutions of the Greeks, especially those of Solon. We are told at least by Cicero[z], who had seen and compared both, that the Twelve Tables in repeated instances had merely translated the laws of Solon into Latin. It is superfluous therefore to raise doubts about the way in which the authors of those Tables became acquainted with those laws: if they knew of them at all. The Romans themselves, who ought to have been best informed on such a point as this of the origin and compilation of their own laws, declare with one voice that it was in this *one way*, of a personal visit to Greece and of a personal examination of the laws of the Greeks on the spot. Tradition adds too that in the compilation of these xii Tables the Roman legislators were assisted by a Grecian, a contemporary of these times, Hermodorus of Ephesus; and the part which *he* took in it was attested among the Romans themselves by the erection of a statue to *him* in the Comitium at Rome[a].

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[z] De Legibus, ii. 23–27.

[a] Pliny, H. N. xxxiv. 11. 213: Fuit et Hermodori Ephesii in Comitio, legum quas decemviri scribebant in-

If it is objected that Greek history is silent about the fact of any such visit and at any such time and for any such purpose; we may reply that Roman history is not so: and that we are bound to defer not to the negative testimony of Grecian history, but to the positive testimony of Roman. It is unnecessary to appeal to instances of this testimony in so clear a case. Dionysius of Halicarnassus, Livy, Diodorus, Plutarch, Cicero, Tacitus[b], Pliny the elder, Pliny the younger[c], A. Gellius, Dio Cassius[d], Florus, Servius[e], Lydus, whosoever has occasion to allude to this subject, take the fact of such a visit for granted, as one of the most unquestionable in Roman history.

But if the silence of Greek history about it is urged as a ground of objection to the truth of the fact; it is right to inquire what Greek history is meant? If the fact ever happened, it must have been about the time to which the above review of the account of the whole proceeding determines it; that is, between B. C. 453 and B. C. 450. What Greek history then is extant, which relates to this period, except the summary of Thucydides? And what is there even in the summary of Thucydides relating to these years, B. C. 453—450[f]? He has passed over this event, if it happened in any of those years; but he has passed over almost every thing else which happened in them also. And why must he have noticed this, and yet have omitted every thing besides which concerned his own subject much more properly than this one event?

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terpretis, publice dicata. Hermodorus was a contemporary and fellow-townsman of Heraclitus the philosopher; whom the Ephesians it appears banished for no other reason, as far as we know, than simply because he was too good for them. Stobæus, Florilegium. Titulus xl. Περὶ ξένης cap. 9. Musonii: Ὥσπερ Ἀθήνηθεν μὲν Ἀριστείδης ὁ δίκαιος ἐξηλάθη, ἐξ Ἐφέσου δὲ Ἑρμόδωρος, ἐφ' ᾧ καὶ Ἡράκλειτος ὅτε ἔφυγεν ἡβηδὸν ἐκέλευεν Ἐφεσίους ἀπάγξασθαι — Strabo, xiv. 1: Ἄνδρες δ' ἀξιόλογοι γεγόνασιν ἐν αὐτῇ (τῇ Ἐφέσῳ) τῶν μὲν παλαιῶν Ἡράκλειτός τε ὁ σκοτεινὸς καλούμενος καὶ Ἑρμόδωρος, περὶ οὗ ὁ αὐτὸς οὗτός φησιν· Ἄξιον Ἐφεσίους ἡβηδὸν ἀπάγξασθαι, οἵτινες Ἑρμόδωρον, ἄνδρα ἑωϋτῶν ὀνήϊστον, ἐξέβαλον, φάντες Ἡμέων μηδεὶς ὀνήϊστος ἔστω· εἰ δὲ μὴ ἄλλῃ τε καὶ μετ' ἄλλων. δοκεῖ δ' οὗτος ὁ ἀνὴρ νόμους τινὰς Ῥωμαίοις συγγράψαι. Cicero has translated this quotation from Heraclitus, Tusculanæ, v. 36. He renders the Ἄξιον, &c. Ephesios esse morte multandos—which does not come up to the original, nor express the point of the satire conveyed in it.

[b] Ann. iii. 27.

[c] Epp. viii. 24.

[d] xliv. 26.

[e] Ad Æn. vii. 695.

[f] i. 111. 112. Cf. Mr. Clinton's Fasti Hellenici: B. C. 453—B. C. 450.

DISSERTATION V.

On the Irregular Roman Calendar, or Kalendarium Vagum Romanum.

CHAPTER I.

SECTION I.—*On the state of the Roman Calendar just before the Julian Correction.*

LITTLE as the learned have hitherto known of the true history of the Roman calendar at any time, yet if there is any one period in the course of its existence more obscure, more involved in perplexity, and more difficult and embarrassing than another, by the common consent of chronologers of modern times it may be considered to be that on which we are about to enter: the period of the irregular state of the Roman calendar. The irregular Roman calendar, the calendar such as it was just at the time of the Julian correction, and such as it is said to have been long before, is the opprobrium of Roman chronology. The most skilful of modern writers on this subject have laboured in vain to explain it; and after so many failures of this kind it might well be pronounced *a priori* an hopeless attempt to endeavour to extract light from the darkness and order out of the confusion in which this period of the history of the Roman calendar from first to last appears to be involved. And such an attempt would indeed be hopeless, and worse than absurd or foolish, except by means of those clues and those data which it has pleased Divine Providence to put into our hands; the right use of which, with the blessing of the same Providence on our undertaking, will enable us, we hope, to thread our way even through the mazes of this more than Cretan labyrinth, and to explain and clear up the irregular period of the calendar with little more difficulty and little more uncertainty than the regular period itself.

SECTION II.—*The actual state of the Calendar at the time of the Julian Correction an argument of its original regularity.*

That the civil year of Rome just before the Julian correction had got into a state of disorder, of which there was no example in any other calendar of the time, is attested by all the writers of antiquity who have had occasion to speak of that correction. And when they would specify the proofs of the confusion to which the calendar had been actually reduced, they agree in insisting on this *one fact*; viz. that the ceremonies or observances of one season of the year had got into another. The feriæ of the spring were falling in the autumn; and those of summer in winter. Now this representation answers the purpose intended by it, that of illustrating the actual state of the calendar at the time; but it proves also, as plainly as the most express testimony could have done, that such a state of the calendar must have been accidental. It could not have been its actual state from the first; a very different constitution and order of things must some time or other have prevailed in it. It would not have been urged as the most convincing proof of a disordered calendar that there was no longer any analogy between the seasons of particular observances and the observances themselves; if those observances had not been originally adjusted and prescribed on a very different principle: and if the congruity between what was appointed to be done and the times and seasons at which it was expected to be done had not been as perceptible of the relations of the calendar in the abstract, as the total want of congruity, at this particular juncture, between the appointed observances which it required and the actual time of their celebration.

It is impossible indeed that, in adjusting and laying down the details of the calendar for civil or religious purposes, the connection between particular institutions and the times proper for them could be deliberately disregarded. This connection is founded in the nature of things; nor could it be overlooked and neglected any where without offending the universal sense of propriety among mankind. It might be a principle of religion in some cases, (as among the Egyptians,)[g] that the ceremonies of the calendar should revolve through all the seasons of the natural year. But in such cases the calendar itself was cyclical; and therefore all its feriæ and observances were cyclical too. In such cases, all seasons of the natural year appear to have been considered equally proper for the particular institutions of the civil calendar; all of which borrowed from those seasons, and all had reflected upon them by those seasons, under whatsoever circumstances the coincidence between them might be taking place, one and the same character of fitness and one and the same of sacredness. But with a fixed calendar of any kind the state of the case must have been altogether changed. The original details of such a calendar would require to be digested and laid down on a very different principle; and in repeated instances they would speak for themselves, and declare by their own nature for what season of the year they must have been intended.

The natural sense of propriety in this respect is well expressed by Cicero in his imaginary Πολιτεία, where he is legislating on this very subject of Feriæ and Dies Festi in the calendar[h]; as i. That they should be kept Operibus patratis, i. e. at the most convenient seasons, when they would interfere with nothing else which necessarily required to be attended to: ii. That they should be so fixed as to fall out as nearly as possible In annuis amfractibus; i. e. at or about the most remarkable and most perceptible divisions of the natural year, which are the cardinal points: iii. That, for all these purposes, and in order to a due regard to the Perfectio operum rusticorum, the Sacrificiorum libamenta and the Fetus pecorum, each at the prescribed time and season, the regulator of the calendar (the Compositor anni) should pay special attention to the Ratio interkalandi, as the only constant precaution whereby a fixed calendar could be prevented from being unsettled, and a regular calendar from becoming irregular.

It is superfluous to illustrate these natural and obvious

[g] Fasti Catholici, ii. 390. Diss. xii. ch. i. sect. vi. [h] De Legibus, ii. 8. Cf. 12.

principles by the example of the Israelitish or Jewish calendar of sacred antiquity; which had the first of its national festivals fixed to the season of barley harvest; its second to that of wheat harvest; its third and greatest to that of vintage or ingathering. Nor is it necessary to appeal to the Athenian calendar as originally ordered by Solon, in proof of the same things; though that too would furnish abundance of instances of rites and ceremonies intended at first for such and such seasons of the year, and ever after declaratory of their own relation to them in that respect by the nature of the ceremonies themselves: as the Thargelia attached to the season of barley harvest, and the Pyanepsia or Oschophoria attached to that of vintage, among the Athenians. There can be no doubt that the same natural principle was taken along with him by Numa in regulating the details of the old Roman calendar. Some striking examples of its operation in the perceptible fitness of such and such ordinances of his appointment to the times of the year for which they were appointed have been produced[i]; and there is every reason to conclude that, if the ritual or religious calendar of the Romans had come down to posterity exactly as it was digested and prescribed by Numa, the same analogy of rites and seasons one to the other, which appears in these instances, would have been seen to pervade the whole of it.

It is evident therefore that no such state of things, as that which actually existed just before the Julian correction, could have been possible either of the original calendar of Numa, or of that which was directly derived from it and differed from it only accidentally, the Decemviral correction; without an entire and total departure from the first principles of each. It cannot indeed be denied that each of these calendars from the very laws of its own constitution and administration was liable to a certain degree of variation, and so far to a certain degree of irregularity; but the irregularity was confined within fixed limits, and at stated times was always corrected and redressed. So much of variation, and so much of irregularity as this amounted to, is an inseparable accident of every calendar which has to adjust together two such different things as the lunar and the solar motions, the lunar and the solar year. The Kalends of Januarius in the calendar of Numa might advance on their proper epoch February 17 as far forward as March 7; and might fall back upon it as low as February 6: but they could not do more: and in the calendar of the Decemvirs they might advance as far forward as January 28, but they could not fall back lower than December 29. This was not a degree of excess or of defect in either instance which could produce any sensible difference to the apparent regularity of the calendar; not even as tested perpetually by the analogy in question between rites and ceremonies and the times and seasons at which they were observed.

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[i] Supra, 286 sqq. Diss. iii. ch. iii. sect. vi. iii.

SECTION III.—*The state of things actually existing just before the Julian Correction not necessarily of long standing.*

From the actual state of the calendar then just at the time of the Julian correction, and from the circumstances of distinction most characteristic of it, it is a necessary inference that the calendar actually in use at that time could have been neither the calendar of Numa nor the Decemviral correction of Numa's calendar. The writers who have left such descriptions on record seem so to express themselves about this state of things as if they had thought it had always existed; or at least for time out of mind: and modern writers, influenced no doubt by these representations of the ancients, appear to be still more decidedly under the impression that the Romans never had a regular calendar at all; or that, if they ever had one, it must have been speedily superseded by a very different kind of calendar, so old in comparison of any thing else, which might once have existed among them, that its first beginning was lost in its own antiquity.

To the first of these opinions, that which should doubt of the existence of a regular calendar among the Romans at any time, the considerations on which we have just been insisting are a sufficient answer. The instances which contemporary writers adduce as the strongest proofs of disorder and irregularity are the clearest of all intimations that the calendar must once have been orderly and regular. With regard to the second, that which should suppose an irregular administration of the calendar of indefinite antiquity; the state of things actually existing at the time of the Julian correction might have been of long standing; and yet the mere fact of *that* state and at *that* time is no necessary proof of its antiquity. A very short interval of time would be competent to disorder the most regularly constructed calendar of the lunæsolar kind. The neglect of its proper rules and precautions persisted in for a few years only would suffice for that purpose; and even the Roman calendar might have been as regular and well ordered, only a very short time before the Julian correction, as in the lifetime of Numa himself, and yet at the date of that correction might have been actually exhibiting those clear and unequivocal symptoms of luxation and confusion of which the contemporary writers complain.

We would not indeed be understood to deny that this state of things in the calendar was really of long standing in the time of Julius Cæsar; nor that the very circumstance of its having been so, and the inconvenience which had long been felt in consequence of it, might have been the principal motive to the Julian correction. All that we wish to say is that if we knew no more than the mere matter of fact as it held good at the time; we could not necessarily have inferred from this fact that such a state of things had been of long continuance. In any case, howsoever far back beyond the date of the Julian correction the actual beginning of this state may go; it must still fall short of the date of the Decemviral correction, and much more of that of the first introduction of the calendar of Numa: for each of these was a regular calendar of its kind, and each was undoubtedly in use at Rome for a longer or a shorter time.

The questions then which we have to consider at present are these. i. Admitting the irregularity actually prevailing in the calendar at the time of the Julian correction to have been of long standing; how far back nevertheless is it capable of being traced? and at what point of time a state of things, ancient and inveterate as it might be at the time of the Julian correction yet contrary to the original constitution of the calendar, must have taken its rise? ii. Supposing this state of things in the calendar so contrary to its original constitution to have had an historical beginning, which might be ascertained; whether the causes or motives into which it is to be resolved can be discovered? We shall begin with considering the probable cause or causes of such an effect; and then proceed to the investigation of the epoch or point of time from which it is probably to be dated.

SECTION IV.—*Probable causes of the irregularity existing at the time of the Julian Correction. Proximate or primary cause assigned by contemporary writers.*

A calendar of any kind designed for regularity, if its proper rules were only so framed at first as to answer the end intended by them, and were observed and applied accordingly ever after, in the nature of things never could become irregular. If such a calendar is to be thrown into disorder, this state of the case must be reversed. Its proper rules must begin to be neglected; or to be superseded by new ones, improper for it and inapplicable to it. We can imagine in short no possible cause *a priori*, whereby a calendar, originally regular and adapted for perpetuity, could lose its proper character, except by the loss of its proper laws, and its ceasing to be governed by them, and to be administered in conformity to them. And in the case of a lunæsolar calendar, a calendar which must be constructed and administered with an equal regard to two such different motions as that of the sun and that of the moon respectively; nothing, it is evident, could be so important to the conservation of its proper character, nothing could more directly affect its relation to each of those momenta at once, than the administration of its proper intercalary system. No well contrived calendar of that kind could possibly become irregular beyond certain limits, in which the proper intercalary rule was duly observed; and none could possibly continue so in which it was otherwise administered. In a case of this kind an irregular intercalary system is an infallible argument of a calendar already disordered, or in imminent danger of becoming so. Among the proximate causes then of the ultimate state of things exemplified in the Roman calendar, it is no wonder that we find the contemporary writers, or those who have occasion to allude to the same subject in after times, insisting on nothing so distinctly as this.

SECTION V.—*Testimonies of antiquity to the state of disorder in the Calendar, and to its cause, at the time of the Julian Correction.*

i. Feriarum festorumque dierum ratio in liberis requietem habet litium et jurgiorum; in servis operum et laborum: quas compositor anni conferre debet et ad perfectionem operum rusticorum; quod tempus, ut sacrificiorum libamenta serventur fetusque pecorum quæ dicta in lege sunt, diligenter habenda ratio interkalandi est, quod institutum perite a Numa posteriorum pontificum negligentia dissipatum est[k].

ii. Conversus hinc ad ordinandum reipublicæ statum fastos correxit, jam pridem vitio pontificum per interkalandi licentiam adeo turbatos ut neque messium feriæ æstati neque vindemiarum autumno competerent[l].

iii. Ἡ δὲ τοῦ ἡμερολογίου διάθεσις καὶ διόρθωσις τῆς περὶ τὸν χρόνον ἀνωμαλίας, φιλοσοφηθεῖσα χαριέντως ὑπ' αὐτοῦ καὶ τέλος λαβοῦσα, γλαφυρωτάτην παρέσχε χρείαν. οὐ γὰρ μόνον ἐν τοῖς παλαιοῖς πάνυ χρόνοις τεταραγμέναις ἐχρῶντο Ῥωμαῖοι ταῖς τῶν μηνῶν πρὸς τὸν ἐνιαυτὸν περιόδοις, ὥστε τὰς θυσίας καὶ τὰς ἑορτὰς ὑποφερομένας κατὰ μικρὸν εἰς ἐναντίας ἐκπεπτωκέναι τοῖς χρόνοις ὥρας, ἀλλὰ καὶ περὶ τὴν τότε οὖσαν ἡλιακὴν οἱ μὲν ἄλλοι παντάπασι τούτων ἀσυλλογίστως εἶχον, οἱ δ' ἱερεῖς μόνοι τὸν καιρὸν εἰδότες ἐξαίφνης καὶ προῃσθημένου μηδενὸς τὸν ἐμβόλιμον προσέγραφον μῆνα Μερκηδόνιον ὀνομάζοντες[m].

iv. Quod delictum ut corrigeretur Pontificibus datum est negotium, eorumque arbitrio interkalandi ratio permissa. sed horum plerique ob odium vel gratiam, quo quis magistratu citius abiret diutiusve fungeretur, aut publici redemtor ex anni magnitudine in lucro damnove esset, plus minusve ex libidine interkalando, rem sibi ad corrigendum mandatam ultro depravarunt[n].

v. Quod cum in initio Romani probassent contemplatione parilis numeri offensi neglectum brevi perdiderunt, translata in sacerdotes interkalandi potestate; qui plerumque gratificantes rationibus publicanorum pro libidine sua subtrahebant tempora vel augebant. cum hæc sic forent constituta, modusque interkalandi interdum cumulatior interdum fieret imminutior, vel omnino dissimulatus præteriretur; nonnunquam accidebat ut menses qui fuerant transacti hieme modo æstivum modo autumnale tempus inciderent[o].

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[k] Cicero, De Legibus, ii. 12. Cf. 8.

[l] Suetonius, Julius Cæsar, xl. 1.

[m] Plutarch, Cæsar, lix.

[n] Censorinus, De Die Nat. xx.

vi. Verum fuit tempus cum propter superstitionem interkalatio omnis omissa est. nonnunquam vero per gratiam sacerdotum, qui publicanis proferri vel imminui consulto anni dies volebant, modo auctio modo retractio dierum proveniebat; et sub specie observationis emergebat major confusionis occasio[p].

vii. Hæc nondum extentis fusius regnis diu ignoravere Romani; perque sæcula multa obscuris difficultatibus implicati tunc magis errorum profunda caligine fluctuabant cum in sacerdotes potestatem transtulissent interkalandi. qui licenter gratificantes publicanorum vel litigantium commodis ad arbitrium suum subtrahebant tempora vel augebant[q].

Now these are clear descriptions of an arbitrary, a precarious, and an uncertain rule of intercalation; and a rule of that kind, in the case of a lunæsolar calendar, is an infallible criterion of one which has already become irregular, or soon must do so. It would seem to be necessary therefore, at this point of our inquiries, that we should consider what proof may be extant, and for how long a time before the Julian correction, of the application of such an uncertain rule to the Roman calendar. But to enter upon that question here would anticipate what we purposely reserve for a future opportunity. We will observe only that evidence is on record, supplied partly by Cicero, partly by Livy, partly by the Fasti Triumphales, of intercalary years prior to the Julian correction, some nearer to it, some further off from it; the nearest B. C. 52, the most remote B. C. 189: among which when compared together no certain proportion, no principle of analogy, is seen to hold good; nothing in short but the circumstance that all were intercalary alike: that each had the usual Merkedonius, and in the usual place in the calendar, the month of February.

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[o] Solinus, i. 43.

[p] Macrobius, Saturnalia, i. 14. 267.

[q] Ammianus Marcellinus, xxvi. 1. p. 71.

It is clear however from such testimonies as the above that the actual system of intercalation, long before the Julian correction, had been arbitrary and left to the sole discretion of the pontiffs. Of this its actual character we have a striking illustration in what the historian Dio records B.C. 50, of one of the motions brought forward in that year by Curio, at that time tribune of the people: the object of which was the insertion of a Merkedonius in the current year out of course. *Καὶ ἠξίου μῆνα ἄλλον πρὸς τὰς (ἀπ᾽) αὐτῶν δὴ νομοθεσίας ἐπεμβληθῆναι. τοῦτο δὲ ἐγίγνετο μὲν ὁσάκις γε καὶ καθῆκον ἦν, οὐ μέντοι καὶ ἐκεῖνο* (lege *κατ᾽ ἐκεῖνο*) *τὸ ἔτος συνέβαινεν, ὥσπερ που καὶ αὐτὸς ἅ τε ποντίφιξ ὢν ἠπίστατο. ὅμως δ᾽ οὐδὲν (ἧττον) δεῖν τε αὐτὸ γενέσθαι ἔλεγε, καὶ τοὺς συνιερέας ὅσον ἀπὸ βοῆς ἐξεβιάζετο. καὶ τέλος μὴ δυνηθεὶς αὐτοὺς πεῖσαι συγκατατίθεσθαί οἱ (ὥσπερ οὐδὲ ἐβούλετο) κ̀, τ. λ.*[r]

He subjoins that Curio made the refusal of this demand an excuse for embracing the party of Cæsar, to which he had before been opposed; and herein he is confirmed by Cœlius, one of Cicero's correspondents, who writes to him as follows[s]: Quod tibi supra scripsi Curionem valde frigere, jam calet. nam ferventissime concerpitur. levissime enim quia de interkalando non obtinuerat transfugit ad populum, et pro Cæsare loqui cœpit. The time of these proceedings at Rome B.C. 50 was the last half year of Cicero's government of Cilicia; for which he set out in the month of May B.C. 51 and from which he returned in that of August or September B.C. 50. In his own letters to Atticus, written from Asia during this year of office, he expresses more than once the greatest anxiety not to have it prolonged even by an intercalary month; and he is repeatedly urgent with Atticus to use his interest to prevent that. Hoc tibi ita mando ut dubitem an etiam te rogem ut pugnes ne interkaletur. sed non audeo tibi omnia onera imponere. annum quidem utique teneto[t]—Per fortunas quoniam Romæ manes . . . . quæso ut simus annui. ne interkaletur quidem[u].

The interkalations therefore could now be managed by interest and interference; and could be either antedated or postponed to suit particular purposes. Speaking also of some things, the date of which would be different as the year was common or intercalary, (for instance what he calls the mysteries*,) he observes: Cum scies Romæ interkalatum sit

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[r] xl. 62.

[s] Ad Familiares, viii. 6.

[t] Ad Atticum, v. 9. Cf. v. 1, 2: Ad Fam. ii. 7. 10: iii. 10: xv. 9. 12.

[u] Ad Atticum, v. 13. Cf. 11.

* In this allusion to the Mysteria there is an obscurity, which has never been cleared up, and probably never will be. There are similar allusions in other parts of Cicero's correspondence; in one of which too they are termed the 'Romana mysteria.' i. Faciesque me in quem diem Romana incidant mysteria certiorem, et quomodo hiemaris[1]. The date of this letter was February or March Roman B. C. 51–50. ii. B. C. 44, and after the Julian correction itself: An probas si ad Kal. Januarias cogitamus? (sc. reverti)[2]. meus animus est æquus, sic tamen ut nihil offensionis sit. et tu etiam scito quo die olim piaculum, mysteria scilicet. ut ut sit res, casus consilium nostri itineris judicabit. dubitemus igitur: est enim hiberna navigatio odiosa, eoque ex te quæsierim mysteriorum diem .... ego hinc volo pridie Kalendas (sc. Quinctiles sive Julias): as the context implies B. C. 44.

We learn then from these different allusions that these Mysteria Romana were a piacular ceremony of some kind; to which Cicero himself attached so much importance and so much efficacy that he did not like to decide respecting his personal movements without taking it into account. We learn from them too that before the correction of the calendar their date was liable to be affected by the year's being intercalary or not; and that even after the correction they had not a stated date; they were still more or less uncertain: only that B. C. 44 in particular they must come in the latter half of the year, between the Kalends of Quinctilis, (or Julius, as it was now also called,) and the Kalends of Januarius.

Lactantius observes[3], Romæ ut in plerisque urbibus scimus esse quædam sacra quæ aspici a viris nefas habeatur. In that respect they resembled the Thesmophoria of the Greeks; to which the name of μυστήρια was as applicable as to the Eleusinia: though these latter were not confined to one sex. The most remarkable of these among the Romans were the Sacra Bonæ Deæ. Fit ei deæ, says Cicero[4], cujus ne nomen quidem viros scire fas est.

Exibit quam sæpe time, seu visere dicat
Sacra Bonæ maribus non adeunda Deæ[5].

And though some authors among the Romans appear to have considered the Bona Dea as the same with the Earth, and under the name of the Dea Maja to have given its name to the month of May[6], it does not appear that her rites were restricted to the Kalends of May; nor is there

[1] Ad Atticum, vi. 1 ad finem.

[2] xv. 25: cf. 26. Cf. xvi. 6, 7, 9: 11: 15.

[3] iii. 20.

[4] xxx. De Haruspicum responsis, 17. Cf. Festus, iv. 113. 7 Damium Sacrificium.

[5] Tibullus, i. vi. 21.

[6] Macrobius, Saturnalia, i. 12. 258, 259.

necne velim ad me scribas certum quo die mysteria futura sint[w]: and again, alluding to the Liberalia, the most usual time of giving the *toga pura* to such youths as were of an

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any connection between this goddess and the Kalends of May in the extant fragments of the Julian calendar.

We are inclined to the opinion that Cicero's Romana mysteria were these Sacra Bonæ Deæ; concerning the rule of which it does not appear that any thing further was fixed, except that they should be annually performed by the women alone, in the house of some curule magistrate, (the consul or the prætor,) for the time being[7]: but at what time of the year seems to have been indefinite. These sacra consequently belonged to the class of *conceptiva*, which must be performed once in the year, but on no stated day. In Cicero's consular year, U. C. 691, they were going on in the month of December, Roman, just before the Nones. When they were profaned by Clodius, U. C. 693, they had been going on not long before the Kal. Januarias[8], which answered that year to Feb. 29 B. C. 61. These two instances would lead to the inference that it was usual at this time to celebrate these sacra in the winter quarter of the natural year; and that would probably agree best to the circumstances under which Cicero alludes to them. It is needless to add that the ostensible object of these sacra was Pro salute populi, and that they were consequently Piacular; as Cicero also styles them.

At the same time it must be admitted that there were Sacra Cereris also in the Roman calendar, to which the name of mysteria would be applicable; especially as these too were bound to be performed *Græco ritu* and under the superintendance of Greek priestesses, well acquainted with the ritual of the mysteries of Ceres, especially that of the Thesmophoria.

Nocturna mulierum sacrificia ne sunto, præter olla quæ pro populo rite fiant; neve quem initianto, nisi *ut assolet* Cereri, Græco sacro[9]—Romæ simulacrum ex ære factum Cereri primum reperio ex peculio Sp. Cassii quem regnum affectantem pater ipsius interemerat[10]—Sacra Cereris judices summa majores nostri religione confici cæremoniaque voluerunt: quæ cum essent assumta de Græcia, et per Græcas semper curata sunt sacerdotes et Græca omnia (*lege* Græco nomine) nominata. sed cum illam quæ Græcum illud sacrum monstraret et faceret ex Græcia deligerent &c.[11]—Has sacerdotes video fere aut Neapolitanas aut Velienses fuisse[11]—Cereri quoque, quam more Græco venerari instituerant, sacerdotem a Velia, cum id oppidum nondum civitatis nomen accepisset, Calcitanam

[7] Cf. Plutarch, Cicero, xix. xxviii: Cæsar, ix: Dio, xxxvii. 35: Servius, ad Virg. Eclog. viii. 106.

[8] Cicero, ad Att. i. 12, 13.

[9] Cicero, De Legibus, ii. 9. Cf. 14.

[10] Pliny, H. N. xxxiv. 9. 206. Cf. Livy, ii. 41: Dionys. Hal. viii. 67-69: U. C. 270 B. C. 484.

[11] Cicero, Orat. xxxvi. Pro Balbo, 24. Cf. De Natura Deor. ii. 24: De Legibus, ii. 9. 15. 36.

[w] Ad Atticum, v. 21 ad finem.

age to receive it: Ea sic observabo quasi interkalatum non sit[x].

All this very plainly implies that the intercalation in the Roman calendar at this period of its history was purely arbitrary. No one now could know beforehand whether a particular year would be intercalary or not. The same thing too appears to be intimated long before this time by Cato, De Re Rustica; who qualifies some of his rules and directions with a modification of this kind, Si interkalatum erit[y], not Quando interkalatum erit. We may probably shew hereafter that the date of this treatise of his was B. C. 154. The calendar then was already subject to an irregular rule of intercalation before B. C. 154. And *that* fact is implied by the express notice which even Livy has taken of particular instances of intercalation as matter of general history: B. C. 161[z], B. C. 170[a], B. C. 189[b]. He would not have done that, had such things been of stated and regular occurrence, in these times, as they might have been formerly; and not something special, and *pro re nata*, and in every point of view extraordinary.

We have therefore probably assigned an answer to one of the questions proposed for consideration; that of the *cause* of the irregularity which ultimately resulted in the Roman calendar. We have alleged at least a very sufficient *proximate* cause of such an effect in the systematic neglect of the old rule of intercalation, and in the systematic adoption and use of a very different one. And we have hereby also ad-

petierunt, vel ut alii dicunt Calliphennam: ne deæ vetusti ritus perita deesset antistes[12].

But the Sacrum Cereris appears to have had a stated month and a stated day of the month in the Roman calendar. It was at hand at least at the time of the battle of Cannæ, the date of which was Sextilis 2[13]. And it seems to have been attached to the same month and to the same time of the month, down to the Julian correction[14]. There could then have been no uncertainty about that Sacrum in particular.

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[12] Valerius Maximus, i. i. 2 De Religione. Cf. Festus, vii. 165. 1 Græca Sacra: xiv. 336. 21 Peregrina Sacra.

[13] Livy, xxii. 56. Plutarch, Fabius Maximus, xviii.

[14] Cf. the Capranican, Amiternine, Antiatine calendar, ad iv Idus Augustas, apud Foggini.

[x] Ad Atticum, vi. 1.

[y] Cf. Cap. cl.

[z] xlv. 44.

[a] xliii. 11.

[b] xxxvii. 59.

vanced so far towards the solution of the other question; That of the point of time from which this irregularity itself must ultimately have borne date. We have ascertained that it could not stop short of B.C. 189, when an irregular system of intercalation was already in existence. But whether it might not in reality pass beyond that date is a point which still remains to be considered.

SECTION VI.—*On the point of time in the history of the Roman Calendar when symptoms of irregularity first begin to appear in it.*

The Roman calendar was certainly not yet irregular when the Decemviral correction was substituted for the calendar of Numa. That correction too was as regular in itself as the calendar of Numa; and it is capable of being demonstrated by a variety of proofs, (and we trust it will be so demonstrated hereafter,) that it continued to be in use, without any change in its nature and constitution, from B.C. 449 to B.C. 209, the end of the xth cycle proper to it.

After B. C. 209 however symptoms of irregularity begin to appear even in this calendar; developing themselves so rapidly that only seven years after B. C. 209, i. e. B. C. 202, the proof of a calendar already disordered, and become very different from what the Decemviral correction in its own nature was calculated to be, and according to its proper laws and proper administration must have continued to be, meets us in a manner which can be neither mistaken nor controverted: being in fact supplied by the epoch of a very memorable event in Roman history; the date of the battle of Zama, which put an end to the second Punic war.

SECTION VII.—*On the date of the battle of Zama, both in the Julian year and in the Roman. Anachronism in Livy's account of the expedition of Scipio to Africa.*

The chronology of the second Punic war from the time of the setting out of Scipio on his expedition to Africa, and from that of his landing there, down to the time of the battle of Zama and of the conclusion of peace, in Livy's account of it labours under a singular anachronism. The consular year of M. Cornelius Cethegus and P. Sempronius Tuditanus, U.C. 550 of Varro B.C. 204, is mentioned by him[c]. The next, which belonged to Cn. Servilius Cæpio and C. Servilius (Geminus,) U.C. 551 B.C. 203, is mentioned also[d]. The end of this year too is noticed and the ingress of the next; that of M. Servilius (Pulex) Geminus and Tib. Claudius Nero, U.C. 552 B.C. 202[e]. Between the two first of these years, B.C. 204[f] and B.C. 203[g], the account is interposed of Scipio's passage to Africa[h] from Sicily; and of his proceedings there[i] down to the siege of Utica, and to his going into winter quarters. This can leave no doubt that, according to the order of these things in Livy, the first year's campaign in Africa after Scipio's landing there must have belonged to the consular year of Cornelius Cethegus and Sempronius Tuditanus, U.C. 550 B.C. 204.

Military operations in Africa are supposed to have been renewed early in the spring[k], in the consular year of Cæpio and Geminus[l], U.C. 551 B.C. 203; and it is clear from the context[m] that they are supposed to have gone on apparently without any interruption in the continuity of one and the same series of events, all in the same year, and all in the spring and summer of the same year, down to the battle of Zama itself. On this principle the date of this battle must have been some time still in the military season which began in the spring of the consular year of Cæpio and Geminus; i.e. with the spring of B.C. 203: and, if this season was not yet over at the time of the battle, the battle itself must have been fought B.C. 203; after the spring indeed but before the winter of that year.

It is true that even before the battle Livy makes mention[n] of the consular year of Servilius and Nero, U.C. 552 B.C. 202. But that does not invalidate the fact for which we are contending, that, according to his chronology, the battle itself must have been an event of the military year which bore date from the spring of the consular year of Cæpio and Geminus, U.C. 551 B.C. 203. It might be the concluding event of that consular year, but it must have belonged to it. The consuls next to Cæpio and Geminus might come into office

[c] xxix. 11.
[d] xxix. 38: xxx. 1.
[e] xxx. 26. 21.
[f] xxix. 11.
[g] xxix. 38: xxx. 1.
[h] xxix. 24.
[i] xxix. 24–35.
[k] xxx. 3.
[l] xxx. 1.
[m] xxx. 3–17: 24–26.
[n] xxx. 26, 27: cf. 32–36.

the same year, B. C. 203; and their proper year in the Fasti might be B. C. 202: and yet the battle of Zama, according to Livy, must have been fought in B. C. 203, and under their predecessors, the consuls of B. C. 203.

And yet it is evident even from Livy himself[o] that Zama was fought only just before the termination of Scipio's last proconsular year; when a successor designed to supersede him was to be expected as matter of course[p]. It is evident also that it must have been fought not much more than three months before the Ides of March in the consular year of Cn. Cornelius Lentulus and P. Ælius Pætus[p], U. C. 553 B. C. 201. It is manifest therefore that either he has lost a year in his account of the proceedings in Africa, after the landing of Scipio there, down to the battle of Zama; or he has dated the landing in Africa a year too soon: that either there must have been three campaigns in Africa, one of which has been totally omitted, or the year of the landing, the date of the first campaign, must have been B. C. 203. We believe that this latter was the real state of the case; and that it may be proved to have been so even by the incidental testimony of Livy himself elsewhere. But on this point we do not consider it necessary to enlarge any further at present; though preliminary to such a question as this of the date of the battle of Zama some notice required to be taken of it. One consequence of the anachronism thus pointed out in Livy's account of the concluding events of this Punic war is that he brings Hannibal also back from Italy in the consular year of Cæpio and Geminus, U. C. 551 B. C. 203[q]; i. e. a year too soon: unless he also is to be supposed to have passed a year in Africa, after his return, down to the time of the battle of Zama, B. C. 202, during which he was doing nothing, or nothing which Livy at least has left on record.

The time of this battle is fixed by Livy himself to a certain interval, not more than three or four months in general, before the ingress of the consular year of U. C. 553, the Ides of March, January 26 B. C. 201. The duration of the second Punic war is always represented at seventeen years. Livy himself, summing up the account of this war, observes[r], Annis ante quadraginta pax cum Carthaginiensibus postremo facta erat Q. Lutatio A. Manlio consulibus (U. C. 513 B. C. 241). bellum initum annis post tribus et viginti P. Cornelio Ti. Sempronio consulibus (U. C. 536 B. C. 218). finitum est septimo decimo anno Cn. Cornelio P. Ælio Pæto consulibus (U. C. 553 B. C. 201): all which notes of time are consistent with each other, and with the truth; only that the last, *septimo decimo anno,* in order to make it quite correct, requires to be understood of the 17th *exeunte* or of the 18th *ineunte.* For the first consuls of the war being P. Cornelius Scipio and Ti. Sempronius Longus U. C. 536 B. C. 218, it is manifest from the Fasti consulares that the Pair which Livy calls the last, Cn. Cornelius Lentulus and P. Ælius Pætus, were the 18th Pair of the war. But the war was virtually finished by the battle of Zama and by the truce with the Carthaginians which followed upon it; and both these events took place strictly under the 17th Pair of the war, M. Servilius Geminus Tib. Claudius Nero (U.C. 552 B. C. 202,) though very near the end of their year of office.

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[o] xxx. 36.

[p] xxx. 38. 39. 40.

[q] xxx. 19–20.

[r] xxx. 44. Cf. Polybius, iii. 8. § 11: xi. 19. § 3: xv. 11. § 6: xxiv. 9. § 5.

SECTION VIII.—*On the Solar Eclipse at the time of the battle of Zama.*

To come then to the date of the battle of Zama both in the Julian year B. C. 202, and in the Roman Calendar U. C. 552.

Speaking of this battle, just at the time of its commencement, Zonaras observes[s]; *Συνέβαλον οὖν οἱ μὲν Ῥωμαῖοι συντεταγμένοι καὶ πρόθυμοι, Ἀννίβας δὲ καὶ οἱ Καρχηδόνιοι ἀπρόθυμοί τε καὶ καταπεπληγμένοι καὶ δι' ἕτερα καὶ ὅτι καὶ ὁ ἥλιος σύμπας ἐξέλιπεν.* The source of this statement was probably Dio Cassius. It asserts the fact of an eclipse of the sun on the day of the battle of Zama; which, if true, is an astronomical criterion of the date of that event of the most decisive kind. The eclipse is said to have been total also; but the magnitude of the eclipse on this occasion is of no importance: only the fact of the eclipse itself.

It is therefore a singular coincidence, and a striking con-

Diodorus, xxix. Fragmenta, lib. xxix. Appian, vii. 1. 54. 60: viii. 2. 134. Silius Italicus, iv. 112: cf. 109–119: xvii. 333, 334. 354. Florus, ii. 6. § 1: iii. 5. § 2. Eutropius, iii. 3–13. Claudian, xxvi. De Bello Getico, 147.

[s] ix. 14. 441. D—442. C.

firmation of all that we have yet said concerning the true year of this memorable battle, that there were two solar eclipses, B. C. 202; one April 25, at 7 30 P. M. Paris, according to Pingrè, the other, October 19 at 11 30 A. M. Paris, according to the same authority. The former could not possibly have been the eclipse attested by Zonaras; and therefore, if B. C. 202 was the true year of the battle, the latter must have been so. And it appears also from Pingrè that this eclipse was central in latitude 37° 2 N. which was only one degree more to the north than that of Zama, 36° N.

We have calculated this ecliptic conjunction of Oct. 19 B. C. 202 from our own Tables; and we have found:

		h.	m.	s.	
The mean new moon,	Oct. 19.	14	51	12	mean time Greenwich.
	Oct. 19.	15	28	40	— — Zama.

		h.	m.	s.	
The true new moon,	Oct. 19.	10	45	9.4	mean time Greenwich.
	Oct. 19.	11	22	37.4	— — Zama.

The sun's distance from the Node at the time of the mean conjunction was not more than 3° 28′, and at that of the true was not more than 2°; so that there must have been a very great eclipse on this occasion: though what appearance it would actually exhibit for the latitude of Zama we do not undertake to say. The principal thing for our purpose is the fact of an eclipse at all on this day, Oct. 19 B. C. 202: for the day of that eclipse must have been that of the battle of Zama also. And though Zonaras is certainly the only historian of these times, at present in existence, who distinctly attests such a fact in connection with the battle; yet, if he found it in Dio Cassius, the comparative lateness of Zonaras is no objection to the truth of the fact itself. The occurrence of an eclipse of the sun, about the time of the battle of Zama in general, may be collected from Livy also. For speaking of the sensation produced at Rome by the news of the rebellion of the Carthaginians, (i. e. the resumption of hostilities by them,) a rebellion due to the return of Hannibal to Africa, or to the expectation of it, and to the accession of confidence thereby inspired, he interposes also an account of some prodigies reported at Rome simultaneously with it[t]: Romæ ad nuntium primum rebellionis Carthaginiensium trepidatio fuerat……prodigia quoque nuntiata sub ipsam famam rebellionis terrorem adtulerant: *Cumis solis orbis minui visus.* All this unquestionably belongs to the year of Zama and to B. C. 202. It is inserted in the midst of the account of the second year's campaign in Africa. The last mentioned circumstance ascertains that an eclipse of the sun had been observed at Cumæ; partial indeed for that parallel, yet considerable enough sensibly to diminish the orb of the sun

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[t] xxx. 16. 17: 19–20: 27–38. Cf. Obsequens, xlv. Lycosthenis.

It was no doubt then the same eclipse which was visible also on the field of Zama. And though Livy's defective chronology would refer this phenomenon to the *beginning* of the consular year of Servilius and Claudius, U. C. 552, and B. C. 203, it must truly have happened towards the end of it, in B. C. 202. The news of the resumption of hostilities by the Carthaginians, produced by the expected arrival of Hannibal in Africa, would probably reach Rome early in October; that of the eclipse, if brought from Cumæ, five days' journey distant, would probably be received Oct. 24. Consequently after the news of the rebellion, and when the alarm excited by it was still fresh; and after the battle of Zama too, but before any thing could possibly yet have been heard of it at Rome.

So much then for the Julian date of this memorable battle. With regard to the Roman, and in terms of the calendar for the time being, it is to be collected from the date assigned by Livy to the defeat of Vermina son of Syphax, a certain number of days after the battle; *Saturnalibus primis*[u]. This phrase is analogous to another which occurs in Livy also on a later occasion, *Quinquatribus ultimis*[w]: and the principle of this mode of speaking is obvious: viz. that when a particular observance of the calendar consisted of a number of days in sequence, all however forming one ceremony or one feast, and all as such having one name in common, in such cases the particular days were distinguished asunder by their order. Each took the name of the feast or of the ceremony; but with a term of number, the first, the second, or the like, declaratory of its own relation to it in its proper order.

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[u] xxx. 36.

[w] xliv. 20.

The Saturnalia according to Livy[x] were first instituted U. C. 257 = B. C. 496; but they were first fixed to a certain day, (and that day ever after nominally and in terms the same), December 17 Roman, (xiv Kalendas Januarias in the old calendar, xvi Kalendas Januarias in the Julian correction), U. C. 537 B. C. 217[y]. And this is their date in the extant fragments of the Julian calendar[z]. Different accounts indeed are given of the origin of this ancient Roman festival; for which we refer the reader at present to Macrobius[a]. He observes towards the end of his account[b]: Apud majores nostros Saturnalia die uno finiebantur: qui erat a. d. quartumdecimum Kalendas Januarias. sed postquam C. Cæsar huic mensi duos addidit dies sextodecimo cœpta celebrari. He concludes[c]: Abunde jam probasse nos æstimo Saturnalia uno tantum die id est quartodecimo Kalendarum solita celebrari; sed post in triduum propagata primum ex adjectis a Cæsare huic mensi diebus: deinde ex edicto Augusti quo trium dierum ferias Saturnalibus addixit. a sextodecimo igitur cœpta in quartumdecimum desinunt quo solo fieri ante consueverant. sed Sigillariorum adjecta celebritas in septem dies discursum publicum et lætitiam religionis extendit.

No notice is taken here of the addition of a day to the Saturnalia by the emperor Caius or Caligula, A. D. 37[d]; which the senate abolished after his death A. D. 41, but Claudius restored, A. D. 45[e]. Macrobius seems to have thought too that the Saturnalia had lasted only one day down to the time of the reformation of the calendar by Julius Cæsar, and the edict of Augustus to which he alluded. But Cicero, writing to Atticus from Cilicia Aspera, B. C. 51, dates the capture of Pindanissum in that country on the Saturnalia ἁπλῶς, and the sale of the mancipia afterwards Saturnalibus *tertiis*[f]; implying that there were three Saturnalia even then. And writing to Atticus again, (probably later indeed than the correction of the calendar by Cæsar, yet long before the edict of Augustus,) he mentions the Saturnalia *secunda*, and the Saturnalia *tertia*[g]; on which last day Cæsar appears to have supped with him. Whether more than one day was yet kept up to the date of Zama may be a doubtful point; but in any case Saturnalibus *primis* can mean only one particular day: the first which ever was or ever could have been kept for the purpose, December 17 Roman.

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[x] ii. 21; cf. Dionysius, vi. 1.

[y] xxii. 1.

[z] The Maffæan and Amiternine apud Foggini. In the Prænestine it is wanting at present.

[a] Saturnalia, i. 7. 233: 8. 234: 10. 239–243: 11. 254. Cf. Dionys. Hal. i. 34: iii. 32: vi. 1. Suetonius, Claudius, v. 1. Also supra, Dissert. ii. ch. i. sect. x. p. 100 Note.

[b] i. 10. 240.

[c] Ibid. 243.

[d] Dio, lix. 6: cf. Suetonius, Caius, xvii. 6. Suetonius tells us he called this day *Juvenalis.*

[e] Dio, lx. 25. 22. Dio in this second instance calls this day the 5th. In the former he made the whole duration of the Saturnalia, five days. The day added by Caius, and confirmed by Claudius, was in reality the 4th. The Sigillaria (three days) made up the entire duration of the Saturnalia, 7 days.

Festus, xv. 412. 8. Quinquatrus, seems to speak of it as a popular error that the Saturnalia were thought *triduo celebrari.* He must have meant according to their old or original rule.

To proceed then. It appears from Appian[h] that Scipio burnt the refuse of the spoils of the victory on the field of battle; and as that was after the battle, it would be on the following day. Livy's account is; Scipio confestim a prælio expugnatis hostium castris direptisque cum ingenti præda ad mare ac naves rediit; nuntio adlato P. Lentulum ... cum omni genere commeatus ad Uticam adcessisse[i]. The distance from Zama to the sea in the direction of Utica in a right line, by D'Anville's map, was nearly 110 Roman miles: and, since after such a battle as Zama it is to be supposed that there must have been many wounded in the Roman army, we may assume that he could scarcely march at a greater rate than eleven of these miles a day: and that would require ten days in all. He would arrive at Utica then on the eleventh day after the battle.

From Utica, it is said, he sent Lælius to Rome with the news of his victory; proceeding himself with all his forces by land and by sea to Carthage. And as the distance from Utica to Carthage did not much exceed a day's march[k] by land, much less a day's sail by sea, he might both appear before the port of Carthage and return the same day, the 14th after the battle.

After this Livy supposes him to have marched by land from Utica to Tunes; and while on the road (evidently the same day) to have encountered and routed Vermina. The date of this second victory then could not have been more than 14 days complete after the former: and it is a general argument of the proximity of all these events, the victory at Zama, the defeat of Vermina, and the submission of the Carthaginians consequent upon it, to one another, that the same messenger of Scipio L. Veturius Philo, accompanied by the legati of the Carthaginians on the final errand of peace, brought the first word of them all to Rome; though Lælius had already been despatched with the news of Zama in particular two or three days at least before the next of them happened[1].

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[f] v. 20: cf. vi. 1. p. 634. Also Ad Fam. xv. 4: ii. 10.

[g] Ad Atticum, xiii. 52.

[h] viii. 48.

[i] xxx. 36.

[k] Appian, viii. 9. 13. Utica was 200 st. from Carthage: viii. 75 he makes it 60. Aristotle, ii. 844. 6–16 a. Περὶ θαυμασ. ἀκουσμ. 134. the distance is put at 200 stades.

The date of the Saturnalia prima therefore, Dec. 17 Roman, was 14 days after that of Zama, October 19 Julian. This gives Dec. 17 Roman U. C. 552 = November 2 B. C. 202; and therefore the Kalendæ Decembres Oct. 17, and the iii Nonæ Decembres, Dec. 3 Roman, October 19. This therefore was the Roman date of Zama, December 3 Roman U. C. 552. Let us then proceed to consider what these conclusions imply of the state of the calendar for the time being.

SECTION IX.—*On the irregularity existing in the Calendar at the date of the battle of Zama; and on its amount.*

B. C. 208 was the first year of the xith cycle of the Decemviral correction. The regular Kalends of December that year were December 12. B. C. 207 was the second year of the same cycle: the regular Kalends of December that year were December 2. B. C. 202 was the seventh year of the same cycle; and the actual Kalends of December that year, as we have seen, were October 17. The actual Kalends of December B. C. 202 were consequently 56 days behind the regular Kalends of December B. C. 208, and 46 days behind the regular Kalends B. C. 207.

Now to confine ourselves at present to this latter recession. A recession to that amount, if generated equably through an interval of five years only, would imply a stated annual decrement of nine days in some four of the number, and one of ten in the fifth. And that would actually be the effect produced, between B. C. 207 and B. C. 202, on *one* supposition; viz. that the Roman year for each of those five years was 356 days long, and neither more nor less than 356: for then, allowance being made for the Julian leap year B. C. 205, the sum total of the recession of the Roman on the Julian year, for the interval in question, would be exactly 46 days; nine days for every year distinct from B. C. 205, and ten days for that year itself.

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[1] Livy, xxx. 36. 38. 40.

Two inferences therefore, each in the highest degree probable, would be directly deducible from this state of the case; i. That the epoch of the irregularity, which begins to appear *de facto* first *after* B. C. 208, was this very year B. C. 207 itself. ii. That the irregularity itself consisted at first in the substitution of a year of 356 days in length, and of neither more nor of less than 356, for the regular years of the calendar, whether common or intercalary: which went on, without interruption, not less than five years at least. And with these two conclusions we might rest satisfied for the present; the answer to the first of the questions proposed for solution, (the probable epoch of the irregularity affecting the calendar, which was considered so ancient at the time of the Julian correction,) having been apparently furnished thereby.

CHAPTER II.

On the probable true first cause of the Irregularity of the Roman Calendar.

SECTION I.—*Superstition of the ancient Romans, and the mode in which it shewed itself.*

The superstitious disposition of the Romans, if we choose so to denominate it, or the deep-seated religious feeling of the old Roman character, if we prefer to regard it in that light, shews itself so remarkably in nothing as in the attention paid to accidents, omens, presages and portents of every kind. Whether it was policy or conviction which stamped such a feature on the character of the ancient republic, nothing is so distinctive of it as the importance real or imaginary which is seen to have been attached by it to every thing of that description, howsoever casual or trifling. The Res Haruspicina in general; the system of Divination from extispicia, auspices, auguries; the Observatio de cœlo; as received and established among the Romans, and incorporated with the details of public and private business, were older than the foundation of the city, yet were adopted at Rome from the first. Nor was any thing ever done, or proposed to be done, at home or abroad, by individuals or in behalf of the community, without first consulting and ascertaining the will of the gods in some one of these different ways. Quam volumus licet Patres conscripti, says Cicero[m], ipsi nos amemus; tamen nec numero Hispanos nec robore Gallos nec calliditate Pœnos nec artibus Græcos nec denique hoc ipso hujus gentis ac terræ domestico nativoque sensu Italos ipsos ac Latinos, sed pietate ac religione, atque hac una sapientia quod deorum immortalium numine omnia regi gubernarique perspeximus, omnes gentes nationesque superavimus. *Καί μοι δοκεῖ*, observes Polybius[n], *τὸ παρὰ τοῖς ἄλλοις ἀνθρώποις ὀνειδιζόμενον τοῦτο συνέχειν τὰ Ῥωμαίων πράγματα, λέγω δὲ τὴν δεισιδαιμονίαν. ἐπὶ τοσοῦτον γὰρ ἐκτετραγῴδηται καὶ παρεισῆκται τοῦτο τὸ μέρος παρ' αὐτοῖς εἴς τε τοὺς κατ' ἰδίαν βίους καὶ τὰ κοινὰ τῆς πόλεως ὥστε μὴ καταλιπεῖν ὑπερβολήν. ὃ καὶ δόξειεν ἂν πολλοῖς εἶναι θαυμάσιον. ἐμοίγε μὴν δοκοῦσι τοῦ πλήθους χάριν τοῦτο πεποιηκέναι.*

Hence it is that Pliny demands, Cur enim primum anni incipientis diem lætis precationibus invicem faustum ominamur[o]? And that Ovid inquires of his Janus:

Et cur læta tuis dicuntur verba Kalendis,
 Et damus alternas accipimusque preces[p]?

And that, as Festus tells us[q], the first of the public revenues, which was let out or farmed by the censors, was the Lacus Lucrinus; the first names which in holding a levy used to be called out were such as Valerius, Salvius, Statorius, or the like[r]. That we may confine ourselves however at present, as our purpose requires, to the proof of the importance attached in a religious point of view to fortuitous and insignificant circumstances; nothing could occur in the natural world howsoever trifling, if it was only different from usual, or admitted of being considered so, which was not carefully noted down in the Annales maximi: not only eclipses of the sun or of the moon, and really important and interesting phenomena of that kind, but even an accidental obscuration of daylight, a cloudier or darker day than usual. The enumeration of portents and prodigies is a regular part of Roman history in Livy, Plutarch, and Dio Cassius. The collection of Julius Obsequens consisted of nothing else; and we have only to look into that portion of it which is still extant to see what serious effects or consequences in the apprehension of the compiler were attached to what insignificant causes or antecedents. An owl, or that species of bird which was called *avis incendiaria*, could not be seen in the city, but, as Pliny tells us[s], the entire city must be solemnly purified: and Obsequens is full of cases of that kind too[t]. If the birds built their nests, or the bees swarmed, under circumstances different from usual; it was considered an omen of evil[u]. The deposition of moisture from the air on the surface of a statue passed for a prodigy, as if the statue itself had sweated; and the longer it continued the more portentous it appeared. We read of a statue of Apollo at Cumæ which sweated in this manner three or four days, and by command of the Haruspices was ordered to be thrown into the sea[w]. A prodigy of regular occurrence in Livy and Obsequens, the falling of a shower of stones, could not be expiated by less than a nine days' feriæ. The first instance of such a phenomenon, and of the mode of procuration devised for it, is related of the reign of Tullus Hostilius[x]; and Livy adds[x], Mansit certe sollemne ut quandoque idem prodigium nuntiaretur feriæ per novem dies agerentur: so that the proper name for this peculiar expiatory ceremony ever after this was that of the Novemdiale sacrum[y]. Cicero, as we have seen[z], appears to have thought at first of laying the scene of his dialogue De Republica B. C. 129 at one of these Novemdialia sacra; though he changed it at last to the Feriæ Latinæ the same year. The procuration of earthquakes in particular was a business which sometimes took up 40 days[a]. The squeaking of a mouse or a rat sufficed to interrupt a religious solemnity; and to cause it to be begun again[b]. There were ceremonies called Denariæ—in order to which people must abstain from *ten* things, previously; others which were called Tricenariæ, because they must beware of *thirty* things[c]. Et quoniam mentio sacra litterarum intervenerit, Favete linguis—observes Seneca: hoc verbum non ut plerique existimant a favore trahitur, sed imperatur silentium, ut rite peragi possit sacrum nulla voce mala obstrepente[d]. *Ὅτι εἴ τι τῶν ἐν ταῖς πανηγυρέσεσι νομιζομένων καὶ τὸ βραχύτατον ἡμαρτήθη που, καὶ δεύτερον καὶ τρίτον, ἐπὶ πλεῖόν τε ἔτι μέχρι περ καὶ ἀμέμπτως πάντα γεγονέναι σφισὶν, ἔδοξεν μιᾷ γέ τινι ἡμέρᾳ ἀνεορτάζειν*[e]. Dio speaks here of the repetition of the same ceremony three or four times only, or oftener; but Plutarch tells of one which was repeated thirty times in succession, because of some accident or other[f]. We read of dictators appointed on different occasions, Clavi figendi caussa, merely to drive a nail; in the hope of thereby arresting the progress of a pestilence. The proceedings in the public assemblies

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[m] Oratio xxx. De Haruspicum responsis, 9.

[n] Lib. vi. 56. § 7.

[o] H. N. xxviii. 5. Cf. cap. 3.

[p] Fasti, i. 175. Cf. 71.

[q] x. 198. 9. Lacus Lucrinus. Cf. xiv. 389. 2. Prospera.

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[r] Cf. Cicero, De Divinatione, i. 45.

[s] H. N. x. 16, 17.

[t] Cf. Suetonius, Claudius, xxii. 2. Lydus, De Ostentis, 8. 283. 11.

[u] Si examen apum ludis in scenam venisset haruspices adciendos ex Etruria putaremus: Cicero, xxx. De Haruspicum responsis, 12.

Tamquam lapides effuderit imber,
Examenve apium longa consederit uva
Culmine delubri.
Juvenal, xiii. 67.

Cf. Obsequens, passim.

[w] Dio, Fragmenta, lxxxix. 2. Cf. Cicero, De Divinatione, i. 43. Augustin, De Civitate, iii. 11. Obsequens, lxxxvii. The temple of Apollo at Cumæ, according to Servius, ad Æneid. vi. 9. was situated in the citadel, and the statue there was xv feet high. It appears from Augustin loc. cit. that it was not actually thrown into the sea, on this occasion. Cf. a similar prodigy, U.C. 585, B.C. 169, which seems to have been construed in a more favourable way, as an omen of victory: Augustin, De Civitate, iii. 11: Obsequens, lxix: Livy, xliii. 13. (11. 12): Florus, ii. 8. §. 3. Cf.

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also Obsequens, cxiv. U. C. 663, B. C. 91: Dio, xl. 47. U. C. 702, B. C. 53—52.

[x] Livy, i. 31.

[y] Cf. vii. 28.

[z] Supra, p. 128. Diss. ii. ch. ii. sect. viii. Cf. ad Quintum, iii. 5.

[a] Livy, xxxv. 40. B. C. 193–192. Cf. xxxiv. 55. B. C. 194–193. Suetonius, Claudius, xxii. 2. Cf. Aristotle, i. 367. 33. Meteorologica, ii. 8.

[b] Nam soricum occentu dirimi auspicia annales refertos habemus: Pliny, H. N. viii. 82. 597. Cf. Valerius Maximus, i. i. 5. De Religione. Plutarch, Marcellus, v.

[c] Festus, iv. 117. 4. Denariæ. Cf. xiv. 398. 5. Puri menstruo.

[d] Opp. i. 584. De Vita Beata, xxvi. 7. Cf. Pliny, H. N. xxviii. 3.

[e] SS. Dep. Vaticana Coll. ii. 186. Dionis Cassii, lxvi.

[f] Coriolanus, xxv.

were liable to be interrupted not only by cases of the falling sickness, called for that very reason the Morbus comitialis[g], but by any phenomenon which could possibly be construed into a Διοσημεία or Διὸς σημεῖον, or could give an augur an excuse for crying out *Alio die*[h]: a drop of rain as much as a clap of thunder or a flash of lightning. And not only the occurrence of such things, but even the obnuntiation of them, whether they had really happened or not, was enough for the purpose. And as the privilege Servandi de cœlo, as it was called, i. e. of watching for such phenomena, was restricted at first to the Patricians; it is easy to see how convenient the use of such a privilege was calculated to be, for stopping or at least retarding and impeding obnoxious measures on the part of the leaders of the people *.

SECTION II.—*Probability* a priori *of this feeling of superstition's extending itself at last to the Calendar.*

We need not therefore be surprised if this characteristic tendency of the Romans to attach an ominous import to accidental coincidences is discovered to have extended itself in the course of time even to the calendar; and to have been ultimately the actual reason why it was suffered to fall into disorder. There was a possibility of such an effect *a priori*, grounded on the constitution of the calendar itself, which combined together from the first two systems or cycles, perfectly compatible indeed one with the other, but perfectly distinct one from the other also; the cycle of Kalends or months, and the cycle of the Nundinal day. These systems were incorporated together in the calendar from the first, and ever after went on in conjunction. The menstrual system was divisible into Kalends, Nones, and Ides, as so many integral parts of the month in each instance; the Nundinal system was simply a cycle of eight days: which not being commensurable with that of the months or that of the year exactly must be liable to coincide with every day of the month, and with every day of the year, in its turn; and at stated and regular distances of time asunder, determined by the law of the cycle, and by the law of the calendar, and by the proportion of one to the other perpetually, could not fail to do so.

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* The motions of Clodius B. C. 58 of which Cicero complains so loudly (xxviii. Post reditum, in senatu, 5: xxx. De Haruspicum responsis, 27: xxxii. Pro Publio Sextio, 15. 53: xxxv. De Provinciis Consularibus, 19: xxxvii. In Pisonem, 4. 5. Cf. Asconius, 123, 124: Dio, xxxviii. 13) had for their object among other things the restriction of this power of the obnuntiation, at least in the midst of proceedings before the people and in their proper assembly, already begun and going on at the time. It does not appear that he proposed to take away from the Patres the privilege of the obnuntiation absolutely; or to interfere with the force and effect of such obnuntiations at any other time: only when made under such circumstances as these, with a view to stop what was already going on before the people.

[g] Festus, xiv. 382. 19. Prohibere comitia.

[h] Cicero, De Legibus, ii. 12. Quid gravius quam rem susceptam dirimi si unus augur ALIO DIE dixerit?

There can be no doubt too that, as this could not fail to be the effect of the composition of the Nundinal cycle with the menstrual cycle in the regular calendar, it must have been expected, and must have been contemplated, by the author of the calendar from the first; so that it would be the height of absurdity to suppose that any particular consequence of the joint working of two such systems, any particular form of the Nundinal incidence on the days of the month, could have been studied by Numa more than another, from the first: much less that any one could have been regarded with suspicion, or as an object of precaution, from the first. All must have been considered by Numa admissible which were possible; and all must have been considered indifferent which were admissible.

SECTION III.—*On the prejudice* de facto *existing among the Romans against certain forms of the Nundinal Incidence. Testimony of Macrobius.*

It is notorious however that, if not from the first, yet long before the time of the Julian correction a prejudice did actually exist amongst the Romans against certain possible forms or modes of the incidence of the Nundinal cycle on the days of the month. What these were will best be explained in the words of the author who has given the most particular account of the prejudice itself.

Sed cum sæpe eveniret ut Nundinæ modo in anni principem diem modo in Nonas caderent, (utrumque autem perniciosum reipublicæ putabatur,) remedium quo hoc averteretur excogitatum est. quod aperiemus si prius ostenderimus cur Nundinæ vel primis Kalendis vel Nonis omnibus cavebantur. nam quoties incipiente anno dies cœpit qui addictus est Nundinis omnis ille annus infaustis casibus luctuosus fuit; maximeque Lepidiano tumultu opinio ista firmata est. Nonis autem conventus universæ multitudinis vitandus existimabatur, quoniam populus Romanus exactis etiam regibus diem hunc Nonarum maxime celebrabant, quem natalem Servii Tullii existimabant; quia cum incertum esset quo mense Servius Tullius natus fuisset Nonis tamen natum esse constaret omnes Nonas celebri notitia frequentabant. veritos ergo qui diebus præerant, ne quid Nundinis collecta universitas ob regis desiderium novaret, cavisse ut Nonæ a Nundinis segregarentur. unde dies ille quo abundare annum diximus eorum est permissus arbitrio qui fastis præerant, uti cum vellent interkalaretur; dummodo eum in medio Terminaliorum vel mensis interkalaris ita locarent ut a suspecto die celebritatem averterent Nundinarum. atque hoc est quod quidam veterum retulerunt, non solum mensem apud Romanos verum etiam diem interkalarem fuisse[i].

SECTION IV.—*On the truth and the falsehood contained in the above testimony.*

It is manifest that, according to the above account, two possible cases of the Nundinal Incidence, perfectly distinct from each other, must have been treated as alike suspected; one on the Kalends of January, the other on the Nones of any of the months. The truth of the assertion respecting the estimation of each rests on the same authority, that of Macrobius; and yet, if we proceed to inquire what degree of credit is or ought to be due to the assertion in each of its statements, we shall see reason to conclude that while, as concerns one of them, proposed even as it is, it may be true; as regards the other, though possibly not altogether destitute of foundation, yet stated as it is without qualification of any kind, and as extended to the whole of the calendar, and as resting on the authority of Macrobius only, it must be false.

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[i] Macrobius, Saturnalia, i. 13. 266.

We mean hereby that part of the assertion which relates to the incidence of the Nundinal day on the Nones of any of the months. That was a totally different thing from the incidence of the same day on the Kalends of January. Macrobius affirms that each was alike suspected; and that each was alike an object of precaution in the management and administration of the Fasti. Let us consider then what degree of credit is due to each of these statements respectively.

i. In this particular assertion relative to the Nones Macrobius is singular. The assertion must stand or fall on his *ipse dixit*. In that which relates to the Kalends of January he is not singular; he is confirmed by testimony better and more credible even than his own.

ii. In confirmation of this assertion relating to the Nones he has no matter of fact to appeal to, as he has in proof of that which refers to the Kalends of January. He mentions a case of the incidence of the Nundinal day on the Kalends of January, which bears out his assertion of the ominous character attached to it; but he refers to nothing of the same kind in the case of the incidence on the Nones. We may add that cases of the incidence of the Nundinal day on the Kalends of January, distinct from that which is referred to by him, are on record elsewhere; from which also the ominous character of that form of the incidence may be collected: but no case of the incidence on the Nones, nor any example or illustration of the construction put upon it, is recorded in Roman history any where else; no more than here by Macrobius. And yet this latter case was liable to happen twelve times as often as the former. If then, notwithstanding the prejudice preexisting against this form of the incidence also, and the precautions adopted in order to prevent it, the Nundinal day did sometimes fall even on the Kalends of January; how much more frequently might it be expected to have fallen on the Nones! And if *those* cases of the incidence, comparatively rare of occurrence as they were, have not escaped the notice of contemporary history, and are still found upon record; how much more frequently should *these* too have been noticed and found upon record also!

iii. The assertion however as relating to the Nones is confuted by its own improbability; not to say its own absurdity.

For first, if it is to be received and understood as generally as it is proposed, the suspicious character of this form of the Nundinal incidence must be supposed to have been attached to the Nones of every month; and yet for a reason which could apply only to one of them at the utmost. For what is the cause assigned for this indiscriminate proscription of *all* the Nones? The people of Rome kept the birthday of Servius Tullius; and as Servius was born on the Nones of the month they kept his birthday on the Nones of the month: but, because they did not know on which of the Nones Servius was actually born, they kept his birthday on *all* the Nones; and, because they were accustomed to keep his birthday on *all* the Nones and to meet for that purpose on *all* the Nones, therefore the Nundinal incidence was purposely diverted from *all* the Nones.

To such a representation as this it might obviously be objected that, without calling in question the truth of the statement that Servius was born on the Nones of some one of the months, it would be absurd to suppose that neither the people at large, nor the directors of the Fasti in particular, should have known upon which; especially not more than 25 years after his death, when many must still have been living who had personally known the old king, and could not have been ignorant on what day he was generally believed to have been born, or what day had always been recognized and kept as his birthday in his lifetime itself. It is evident therefore that no general proscription of all the Nones, as days of concourse and congregation on the part of the common people, could possibly have been necessary for any such purpose as that of preventing their meeting on the Nones to celebrate the birthday of Servius; but only of some one of the number at the utmost.

Secondly, it does not appear how even this general and indiscriminate diversion of the Nundinal incidence from the Nones of the months could have prevented the people from meeting on the Nones notwithstanding, to keep the birthday of Servius on those days; if they had always been accustomed to do so: unless Macrobius intended to imply, over and above what he himself has distinctly asserted, that they had been accustomed to meet for that purpose on the Nones of the months only when the Nundinal day fell on the Nones.

Thirdly, it does not appear what possible danger to the established order and constitution of things was likely to have resulted from the meeting of the people on the Nones, or on any day of the month whatsoever, in honour of Servius Tullius; especially after the expulsion of Tarquinius Superbus, the last of the kings. Yet this is the only reason assigned for the diversion of the Nundinal incidence from the Nones; lest the meetings of the people on those days, out of respect to the memory of Servius, should lead to any innovation. A motive like that might well have operated with Tarquin the Proud*; who having compassed the death of Servius by foul means, and having unconstitutionally usurped his throne, had very good reasons for keeping his memory and his name as much as possible out of sight. But why the desiderium of Servius should have been more dangerous to the republic after the experience of the last of the kings, and after the Regifuge also, than that of Numa Pompilius, or that of Tarquinius Priscus, or that of any other of the constitutional kings of Rome, neither does Macrobius explain, nor indeed would it have been easy for him to explain.

Fourthly, there is reason to call in question even the truth of the fact which Macrobius assumes as the foundation of this part of his statements; viz. that Servius was born on the Nones, and therefore that, if his birthday was to be kept at all, it must be kept on the Nones. According to better testimony Servius was born on the Ides of a certain month; and that month, the month of Augustus, anciently called Sextilis. Servorum dies festus vulgo existimatur Idibus Augusti, quod eo die Servius Tullius natus serva ædem Di-

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* It appears accordingly from Dionysius, that Tarquinius Superbus did suppress many, if not all, the occasions of stated concourse on the part of the people: *Συνόδους τε συμπάσας ὅσαι πρότερον ἐγίνοντο κωμητῶν ἢ φρατριαστῶν ἢ γειτόνων ἔν τε τῇ πόλει καὶ ἐπὶ τῶν ἀγρῶν ἐφ' ἱερὰ καὶ θυσίας πάσας κοινὰς προεῖπε μηκέτι συντελεῖν*: iv. 43. But even he did not interfere with the Nundinal resort. It is represented in like manner, v. 2. that one of the first acts of the first consuls Brutus and Collatinus was to restore these meetings.

anæ dedicaverit in Aventino, cujus tutelæ sunt cervi, a quorum celeritate fugitivos vocant servos[k]—Servorum dies festus erat Idibus Augusti, quia eo die rex Tullius filius ancillæ natus est[l]—*Διὰ τί ταῖς Αὐγούσταις Εἰδοῖς Σεξστιλίαις δὲ πρότερον λεγομέναις ἑορτάζουσιν αἵ τε δοῦλαι καὶ οἱ δοῦλοι πάντες; . . . . ἢ διὰ (τὸ) τὸν Σερούϊον τὸν βασιλέα κατὰ ταύτην τὴν ἡμέραν ἐξ αἰχμαλώτου γενέσθαι θεραπαινίδος ἄδειαν ἔργων ἔχουσιν οἱ θεράποντες*[m]; We have just the same authority then, if not better, to believe that Servius' birthday was the Ides of Sextilis as that it was the Nones of any of the months; in which case the object proposed by the diversion of the Nundinal Incidence from the Nones, viz. to prevent the celebration of the birthday of Servius upon the Nones, could have had no foundation. Such a motive as that must have led to the diversion of the incidence from the *Ides*, and not from the *Nones*. And not from all the Ides, but only from one; the Ides of Sextilis.

It would not indeed be necessary to dwell on the confutation of a statement so full of absurdities and inconsistencies as this of Macrobius; had it not imposed on many learned men in modern times, by whom it has been implicitly taken for granted. Let it be observed once for all that any tampering with the cycle of the Nundinal day in the Roman calendar, howsoever desirable it might have been for particular objects and purposes, consistently with the regularity of the calendar itself must have been impossible. And though Macrobius further supposes that the superfluous day (as he considered it) in the year of 355 days was purposely placed at the disposal of the pontiffs for the sake of averting the incidence in question, yet not before the Regifuge and the institution of the republic; this only betrays his ignorance of the true state of the case, or his inattention to it: that the Roman year did not begin to consist of 355 days, nor consequently to possess this supernumerary day, after the Regifuge only, but had always done so from the first. What use then had been made of this supernumerary day before the Regifuge, which began to be applied in this manner only after it?

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[k] Festus, xvii. 502. 6 Servorum.

[l] Ibid. Paullus.

[m] Plutarch, Quæstiones Romanæ c. Cf. Manilius, Astronomicon, iv. 213 De Libra, where the birth of Servius is supposed to have fallen out in Libra.

Non alio potius genitus sit Servius astro,
Qui leges proprias fixit cum jura retexit.

Some commentators on Manilius indeed understand this allusion of Servius Sulpicius, a contemporary of Cicero's.

He supposes too only this one day placed at the disposal of the pontiffs for this particular purpose of diverting the Nundinal incidence from the Nones; and notwithstanding even this one day to have sufficed for that purpose as often as there was occasion. And yet the mere inspection of our Tables of the Nundinal Incidence and of the Nundinal Characters, hereafter to be proposed, will convince the most credulous that this must have been impossible; that such limited means never could have sufficed for every emergency of this kind: that to divert the Nundinal incidence by means of this one day from the Nones of one month would be only to shift it to the Nones of another on which it would not otherwise have fallen, and from which it could not be again diverted except by a repetition of the same process; to be followed by the same effect. So that in reality not one day merely, but a number of days must all have been wanted, and all have been placed at the disposal of the pontiffs, if the Nundinal incidence was to be diverted from the Nones, as often as there might be occasion. There was no year in the regular cycle of the calendar in which the Nundinal day would not fall on the Nones of some one, or more, of the months: and to divert it from one, while the Nundinal cycle itself continued the same, would be only to shift it to another. By hypothesis too, and according to Macrobius, even this one supernumerary day could be inserted only in one place in the calendar; viz. in the month of Februarius, after the Terminalia. What then if the Nundinal day threatened to fall on the Nones of Januarius, or on the Nones of Februarius, as it must sometimes do? How could such an incidence as either of those be prevented by intercalating a day only after the 23rd of Februarius itself? especially in such a calendar as the Decemviral correction, in which Februarius was the second month; or even as that of Numa according to Macrobius himself: if it did not differ with respect to the seat of Februarius in it, as he appears to have believed, from the calendar of the Decemvirs*.

The question then which most properly concerns us at present is that of the degree of credit due to the other part of the same statement; that which related to the Nundinal Incidence on the Kalends of January? On this point we do not hesitate to receive the assurance of Macrobius; i. Because it is confirmed by the testimony of Dio Cassius, who asserts the same thing also[n]. ii. Because he appeals to an actual instance of a year distinguished by the incidence in question, the consular year of Lepidus and Catulus, U. C. 676 B. C. 78, and calculated to justify his account of the ominous character which he supposes to have been attached to that form of the incidence in particular; being a year of great public disturbance, produced by the Tumultus Lepidianus, the work of the consul Lepidus himself. iii. Because Dio Cassius in each of the instances referred to[n] connects this incidence with particular years, B. C. 52, B. C. 39 and A. D. 44 respectively; and on each occasion actually or virtually adds his own testimony to the ominous character which in the opinion of the times adhered to that form of the incidence, and to such years as were distinguished by it.

No doubt then we think can be reasonably entertained on this *one* point; viz. that after a time, and for some reason or other, a strong prejudice against the incidence of the regular

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* Though however these and similar considerations compel us to reject this statement of Macrobius relating to the diversion of the nundinal incidence from the Nones, proposed as it is without qualification of any kind; the truth also compels us to declare that (as we have partly intimated at the beginning of these observations) there was probably some foundation for it. It would be premature to explain what that was at present. Further on in the course of our work we hope to have an opportunity of shewing that, when Servius Tullius instituted the census, he reestablished also the Nundinal calendar at Rome; and instituted a meeting or muster of all the citizens able to bear arms on the ninth day or Nones of every month, reckoned in conformity to that calendar: a meeting which for obvious reasons was very likely to be suppressed by Tarquinius Priscus, and which even the senate and the first consuls after the institution of the commonwealth might not think it expedient to restore.

[n] xl. 47: xlviii. 33: lx. 24.

Nundinal day on the Kalends of January, the first day of the new year, did exist in the minds of the Romans: and a prejudice founded in the idea that such an incidence on the first day of the year portended no good, but rather misfortune, to the rest of the year; and therefore was by all means if possible to be prevented.

SECTION V.—*Ultimate origin of the prejudice against the Nundinal Incidence on the Kalends of January; and consequent date of the beginning of the Irregularity of the Calendar.*

It has been demonstrated however that, howsoever old and inveterate this prejudice might be in the times of which both Dio Cassius and Macrobius attest its existence, it could not have been as old as the origin of the calendar; it could not yet have existed in the time of Numa, nor even in that of the Decemvirs: and yet it might be described as a prejudice of very long standing in the times of which Dio was speaking; if it was even then one or two hundred years old.

With regard therefore to the probable origin of a superstitious prejudice like this, which must have taken its rise some time or other in the regular decursus of the calendar itself, no conjecture would be more probable *a priori* than that it must be resolvable ultimately into some accidental coincidence; when the Nundinal day, in the regular course of the Nundinal cycle, fell on the Kalends of January in some year in the regular course of the years of the cycle of the calendar also: which year was afterwards distinguished and rendered notorious by some public misfortune or other. The characteristic predisposition of the Romans to construe every thing significantly which admitted of such a construction, and to give a meaning and import, sometimes for good but more commonly for evil, to every combination of circumstances, howsoever fortuitous, for which there was any the least foundation, might discover sufficient in such a coincidence to make them conceive a prejudice against this particular form of the Nundinal incidence from that time forward, though they might never have conceived it before.

Now both these criterions meet in B.C. 208 U.C. 546. It was a year distinguished by the double coincidence in question; the incidence of the Nundinal day on the Kalends of January, or the first day of the year, and the accident of a great public misfortune, a great national calamity, in the course of the same year.

With regard to the first of these characteristics, the Nundinal Incidence on the Kalends of January or new year's day; the Nundinal Period, as we have already explained, both in the calendar of Numa and in that of the Decemvirs was a period of four cycles or 96 years. It has also been shewn that the Nundinal character of the first year of this Period was the same in both, viz. 5; i. e. the first Nundinal day in the regular course of the Nundinal cycle in the first year of the Nundinal Period, whether in the calendar of Numa or in that of the Decemvirs, fell on the 5th day of the year: i. e. on the Nones of Januarius.

Such accordingly, as our Type of the Decemviral calendar shews[o], was the Nundinal character of B.C. 449—448, the first year of the first Decemviral cycle, and of the first Nundinal Period in the Decemviral correction; and such again was that of B. C. 353—352, the first year of the fifth cycle and of the second Nundinal Period: and such again was that of B. C. 257—256, the first year of the ninth cycle and of the third Nundinal Period. On the character of the first year of the Period depended that of every subsequent year of the same. The character therefore of the first year of the tenth Decemviral cycle, the second cycle of this third Nundinal Period B. C. 233—232, consequentially deducible from that of the Period, was 7; i. e. the first Nundinal day in that year fell on the 7th day of the year, the 7th of Januarius. The character of the first year of the eleventh Decemviral cycle, the first year of the third cycle of the Period, B. C. 209—208, similarly derived from that of the Period, was 1; i. e. the first Nundinal day in that year fell on the first day of the year. The Kalends of January that year, (the year of which we have been speaking,) were Nundinal.

That the first criterion then, that of the Nundinal Incidence on the Kalends of January, actually held good of this year B. C. 209—208, there can be no doubt. Nor could such a coincidence as that strictly speaking be resolvable into accident; because it was the necessary effect of the regular course of the cycle of the Nundinal day and of the regular course of the cycle of Kalends down to that period of the decursus of both in conjunction. But with respect to any other criterion, which from its own nature must be resolvable into accident, such as the coincidence of some public calamity with this period of the decursus of the Nundinal cycle and of the cycle of Kalends in conjunction; B. C. 209—208 was the eleventh year of the second Punic war: the first of which was B. C. 218. This was the year in which M. Claudius Marcellus in his vth consulate, and Titus Quinctius Crispinus his colleague in office, were both cut off by Hannibal at once[p]. Now that was abundantly competent of itself to brand this year as unlucky, disastrous, and calamitous, in a public point of view. A public misfortune, like this of the loss of both the chief magistrates of the republic at once, had never occurred before. *Καὶ πάθος τοῦτο Ῥωμαίοις συνέπεσε*, says Plutarch[q], *πρότερον οὐ γεγονὸς, ἀμφοτέρους ἐξ ἑνὸς ἀγῶνος τοὺς ὑπάτους ἀποθανεῖν.* Nothing like it had ever happened since the institution of the consular government: and nothing like it was again witnessed down to U. C. 711 the year of Hirtius and Pansa, of which Tibullus writes[r],

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[o] Supra, page 269. Diss. iii. ch. iii. sect ii. page 413. Diss. iv. ch. i. sect. x.

Natalem primo nostrum videre parentes
Cum cecidit fato consul uterque pari.

And yet it appears from Livy[s] that the same year was remarkable also for a grievous pestilence, both in the city and in the country; and, according to Zonaras[t], not only for pestilence, but for reverses in the war, of which Livy in particular has said nothing. He adds however that none of these things affected the Romans so sensibly as the loss of Marcellus. *Οἱ δ' ἐν τῇ Ἰταλίᾳ καὶ ἐκ νόσου ἐπόνησαν καὶ μάχαις ἐταλαιπώρησαν……μεῖζον δὲ τῶν ἄλλων αὐτοὺς ἐλύπησεν ὅτι τὸν Μάρκελλον ἀπέβαλον*: the account of his death following. Nor can there be any doubt that, had there been nothing else to render this year calamitous, the death of Marcellus alone would have been felt and lamented by the Romans as a great national misfortune; almost as great as Cannæ, attended as that too had been by the loss of one of the consuls Æmilius Paullus. When therefore with the fact of these two coincidences, (one that of the peculiar Nundinal character, the other that of the peculiar public character, of this one year,) we couple the discovery of a sudden irregularity which from this time forward begins to appear in the calendar itself, and by the time of the battle of Zama, only six years later, had already attained to a magnitude of 46 days in defect; we shall see every reason to conclude that both the true first cause of the irregularity in question and the true point of time from which it must have begun to bear date are assigned by these coincidences, and by the year of which they held good. A prejudice took possession of the minds of the Romans *in* this year, and *in consequence of* the coincidences which had distinguished this year, against the Nundinal character of the year; a prejudice founded on the idea that such a character was ominous, and had been proved to be so by the actual character of the year: that the public misfortunes which had signalised this year were either the effect of it or in unison with it; that in either case it was dangerous, and for the future was by all means to be averted.

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[p] Livy, xxvii. 21. 22. 25–29. Polybius, x. 32. 33. Plutarch, Marcellus, xxviii–xxx. Silius Italicus, xv. 334–398. Appian, vii. 50, 51.

[q] Marcellus, xxix.

[r] iii. v. 17.

[s] xxvii. 23.

[t] ix. 9. 431. D.

Old and inveterate then as this prejudice might be in the times when Dio Cassius and Macrobius recognized its continued existence, yet its origin turns out, (as we conjectured it would do,) to have been purely accidental. Nor can the purely accidental nature of the prejudice as attaching itself from this time forward to this *one* form of the Nundinal incidence be better illustrated than by the fact that in the course of the very last cycle it had twice occurred; once in the fourth year of that cycle, B. C. 229, and again in the eleventh, B. C. 222: for in both those years the Nundinal character was unity and the Kalends of January were Nundinal. But there was nothing in the subsequent character of either of those years to direct the attention of the pontiffs to the particular circumstance which had characterized the beginning of each; or to make them look with suspicion from that time forward on the recurrence of a coincidence which had so often occurred before, in the regular course of things, and in the regular course of things must so often occur again. B. C.

229 was not remarkable for any public misfortune: while as to B. C. 222, it was even fortunate and glorious, as the Fasti Triumphales shew; being the date of two triumphs, one, of the consul C. Flaminius De Gallis, the other, of the consul P. Furius Philus De Gallis et Liguribus.

We may observe too in illustration of this point that there had been years, even in this second Punic war, distinguished by public disasters as remarkable perhaps as those of B. C. 208, and of recent occurrence; but they had not also been characterized by this particular form of the Nundinal incidence. In the year of the arrival of Hannibal in Italy, and of the two battles of Ticinus and Trebia, the Nundinal character was 8. In the year of Thrasimene, B. C. 217, it was 6. In the year of Cannæ, B. C. 216, it was 3. Why did not the prejudice in question fasten itself on some one of these forms of the incidence respectively; particularly on that which had characterized the year of Cannæ? Partly, it may be replied, and probably because all these were years which came in the decursus or current of a given cycle, but B. C. 208 was the first year of a cycle itself; and it might naturally be supposed that the nundinal character of the first year of a cycle, on which that of all the rest depended, was more significant than that of any of the years in the course of the cycle. Partly however, and no doubt chiefly, because the prejudice itself was altogether the effect of accident; and the accident was so directed by circumstances as to connect the superstition in question with this particular form of the Nundinal Incidence and not with a different one. It must be absurd to reason about the origin of a prejudice like this, as if it could be accounted for *a priori* on any consistent and natural principle of cause and effect. It must appear arbitrary and positive. It must have had its reasons; but as far as they could be discoverable at present they must necessarily appear to have been weak and precarious: and their actual operation at first sight could not but seem to ourselves unaccountable and capricious.

It is to be observed however that even under these circumstances the calendar must still have been regular up to the Kalends of January U. C. 546 B. C. 209; the epoch of the xith Decemviral cycle, the xxiid general cycle. And though the Januarius of that year had been stamped with its peculiar Nundinal character on the very first day of the year; yet the year itself could not yet have acquired the character of calamitous: because the events which made it so had not yet happened. According to the rule of the ingress which prevailed at this time, Marcellus and Crispinus would enter on office upon the Ides of March U. C. 546, April 1 B. C. 208. The departure of the Prætors to their provinces is mentioned by Livy[u] not long after their election. Consules, he adds, religio tenebat, quod prodigiis aliquot nuntiatis non facile litabant. Among these was a swarm of bees in the forum at Casinum[w]; which we apprehend to be a natural argument of the arrival of the month of May at least: because the earliest swarming of bees for the climate of Italy is commonly dated by the ancients about the heliacal rising of the Pleiads, May 7—13.

From what Livy proceeds to subjoin of the celebration of the Ludi Apollinares also in procuration of the pestilence this year, under the superintendence of the Prætor Urbanus of the year, P. Licinius Varus[x], as now taking place for the first time[y] on the day which was ever after *sollemnis* for these games, or one of their *dies sollemnes*, iii Nonas Quinctiles, compared with what follows[z], it must be evident that the consuls of the year too were still at Rome when those games were going on; that is, that neither of them had taken the field before July 20 the same year at least. And from the observation interposed by Livy at last[a], Extrahi æstatem posse cum consules crederent, it appears that the summer or military season itself must already have been drawing to its close just before their death[b].

It follows then that as the calendar had been regular up to the beginning of B. C. 208 it would continue regular, notwithstanding the coincidences in question, down to the end of that year at least. Nor was there any reason *a priori*, notwithstanding the rise of a particular prejudice against this one form of the Nundinal Incidence meanwhile, why it should not continue so; for that incidence was in no danger of recurring again the next year, if it had happened in this. If the Nundinal character of B.C. 208 in the regular course of things had been unity, that of B. C. 207 in the regular course of things too would be 8. But B.C. 207 the prejudice in question, if already conceived, would be free to operate. It must at least affect the question of the intercalation, which by the law of the calendar would be required in the year after that, B. C. 206. If the calendar was to continue to be regular, this intercalation could not be omitted. If it was to be omitted, the calendar could not continue to be regular. Now it is certain that it must have been *de facto* omitted. If so the irregularity of the calendar must have borne date *de facto* from B. C. 207, or at least from B. C. 206. And it is a very remarkable coincidence, and cannot fail to appear a great confirmation of these conclusions, that reasoning only from an independent matter of fact, otherwise ascertained, the date of Zama in the Roman calendar for the time being, we have already come to the same inference; both as to the fact of the irregularity which first begins to appear in that calendar in general, and as to the point of time when it must have begun to bear date.

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[u] xxvii. 23.

[w] Ibid.

[x] xxvii. 21. 23.

[y] xxvii. 23. cf xxv. 12: xxvi. 23: xxvii. 11. Festus, xvii. 476. 1. Salva res est, dates the institution of these games, Q. Fulvio Appio Claudio Consulibus; i. e. U. C. 542 B. C. 212: which is to the same effect as Livy, xxv. 12. 3: and also the next year, U. C. 543 B. C. 211. C. Sulpicio, C. Fulvio Coss., i. e. Cn. Fulvio P. Sulpicio: Livy xxv. 41: xxvi. 1.

[z] xxvii. 25–29. Cf. Plutarch, Marcellus, xxviii. xxix.

[a] xxvii. 26.

[b] xxvii. 26–29.

SECTION VI.—*On the alternative upon which the Romans would have to decide* B. C. 208.

With regard then to the particular mode in which this prejudice would operate; if the conviction was now established that the Nundinal Incidence on the Kalends of January was ominous, and as a necessary consequence of that conviction if it was thenceforward by all means to be prevented; it is manifest that there could be only two modes of proceeding with a view to such an end and effect as that, one of which must be adopted: either that the use of the Nundinal cycle would have to be discontinued from this time forward, or that the regular cycle of the calendar would have to be discarded from that time forward too. It was impossible that both could be retained in conjunction as before, and yet that the incidence in question at stated times could be prevented. It had been of regular occurrence heretofore in the natural course of both these cycles in conjunction; and it must be of regular occurrence still, if they continued to go on together.

Now it is easy to see that the Nundinal cycle for many good and substantial reasons did not admit of being discontinued. It was too ancient an institution to be discarded. It was as old at Rome as the foundation of the city, and in itself it was incomparably older. There was nothing more ancient in Italy. It was too useful and too convenient a measure of time to be dispensed with; and its loss would have been felt in various ways. The rustic tribes, or outlying members of the body politic at Rome, were especially interested in its continuance. The times of their resort to Rome for the markets, and for various other purposes, were regulated by it. It had been consecrated too from the first by the possession of a religious character and estimation; and the strongest and most deep-seated feelings of the human mind would have been shocked by laying it aside, and by prohibiting its observance any longer. The Nundinæ were *feriæ sine festo*: if they were not even in a peculiar manner sacred to Jupiter. Besides which the Nundinal cycle was mixed up in various ways with the details both of public and of private life; and determined a variety of customs and observances which could not easily be changed. The *trinundinum* was a legal term of the greatest antiquity; and of recognized standing obligation both in the courts of justice and in the forum and in the comitium.

It is evident therefore that under these circumstances the Nundinal cycle at all events was to be retained. If so, the regular cycle of the calendar must be sacrificed. The pontiffs appear to have determined on this last alternative, as the least of the evils between which they had to choose; and accordingly from this time forward while the Nundinal cycle is perceived to have gone on, without let or interruption, subject to the same law as before, (the natural law of the cycle,) down to the time of the Julian correction itself, the calendar is seen to have been subjected to laws to which it could not possibly have been subjected before: laws which implied in themselves an irregular rule of administration, yet were not without a definite end and purpose, to which they were all directed and all subservient. What these were, and what this common end and purpose proposed by them, we must now proceed to explain.

CHAPTER III.

On the Rules required for the administration of the Irregular Calendar.

SECTION I.—*Limits prescribed to the Irregularity of the Calendar, by the end to which it was directed.*

If the conclusion to which we have come, respecting the first cause of the irregularity which was allowed to get into the calendar at last, is founded in the matter of fact; then it must be an obvious inference from it that the Irregularity would have its limits: and that those limits would be prescribed by the final end of the Irregularity itself. If it had no object in view but that of preventing the Nundinal Incidence on one particular day of the year, without disturbing the regular course of the Nundinal cycle; its natural limits would be determined accordingly. It could not and would not be allowed to proceed beyond what such a purpose required. The rules and the principles then of the administration of the calendar from this time forward must have been the means and contrivances of various kinds which might be necessary for the attainment of this particular purpose; and as far as those means and expedients might differ from one another, and follow no one and the same cycle in coming into operation and producing their effect perpetually, so far the administration of the calendar conformed thereto must necessarily appear to have been arbitrary, positive, and irregular: but no further.

It is our business then, at this period of our investigation of the history of the Roman calendar, to inquire what these means and contrivances were most likely to be. It is self-evident that they could not always be the same; nor follow a cycle of any kind; nor come into operation in a regular order of succession, or at stated distances of time asunder. A contrivance which answered the purpose for one year would not necessarily answer it for the next year, or for a number of years in succession. Yet they must all have had one object in view, and all have been such as to attain it alike; each under the proper circumstances of its application. It was manifestly possible therefore that they might be found from experience not to be indefinite; to be after all reducible to a few general principles, one or other of which would suit every particular case.

We have discovered accordingly that whatsoever particular modifications of the calendar might be necessary in particular years for the whole of this irregular period; yet that as directed to one object in general, the nature of which was known beforehand, all the expedients and contrivances, which would be required for its management and administration with such an object as that perpetually in view, may be classed under the four following heads.

i. The disuse of the Merkedonius, sometimes for a longer, sometimes for a shorter, period of time.

ii. The use of the Merkedonius, but in an irregular manner, sometimes for several years in succession; and of an irregular length, sometimes of 22 days, sometimes of 23 days, according to circumstances.

iii. The addition of a day to the mean standard of the calendar year; making it 356 days instead of 355.

iv. The subtraction of a day from the mean standard of the calendar year; making it 354 days instead of 355.

These four rules comprehend every thing necessary to the explanation or illustration of the actual administration of the Roman calendar from this time forward, down to the date of the Julian correction. We have ascertained from experience that one or other was competent to answer the purpose proposed by the administration; the stated and regular diversion of a particular form of the Nundinal Incidence upon the days of the year, in every instance in which that purpose is known to have been attained: and that, with one or two exceptions to the contrary, was in fact perpetually. They are the rules and principles which we have taken along with us, in rectifying and reducing to order this most intricate period of the existence of the Roman calendar; from B. C. 207 to B. C. 45: the proper period of the irregular state of the calendar. The necessity of the case suggested them to us while the work of this rectification and reduction was in hand; and the same necessity, we doubt not, would suggest them to any one else, who should undertake to effect the same thing, subject to this *one* condition only: viz. That, while the calendar continued to embody the Nundinal cycle, in perfect conformity to the proper law of that cycle, perpetually, the details of the calendar should be so modified and so regulated in other respects that, except in those cases in which the matter of fact is known from testimony to have fallen out differently, the Nundinal Incidence should never happen on the new year's day; that is on the Kalends of January. There is every reason then to presume that the proposal of the very same end, and the very same fact of the impossibility of attaining it perpetually in any other way, and consequently the very same sense of necessity, must have suggested these very same expedients in the first instance of all to the Roman pontiffs, or to the proper persons, whosoever they were, who had officially the direction and administration of the calendar at Rome. Contrivances, rules, and expedients such as these, (as the actual scheme of the calendar, which we ourselves have compiled for this period by means of them, suffices to shew,) were competent to answer the end in view; but nothing less than these: and we may add nothing in general different from these.

SECTION II.—*On the actual use of the Rules in question in the administration of the Irregular Calendar.*

We shall proceed however to shew that we are not left to supposition merely when we assume that from this time forward the Roman calendar must have been subjected to such rules and principles as these. Testimony is extant to the *actual* use of one or other of the expedients in question according to circumstances; or if testimony is wanting, its absence is supplied by the reason of things, and by the necessity of the case.

i. With regard to the omission of the regular Merkedonius for a longer or a shorter time; Macrobius observes, Verum fuit tempus cum propter superstitionem interkalatio omnis omissa est[c]. The fact thus asserted could not possibly have held good of any period in the existence of the regular calendar. If the assertion had any foundation to rest upon, it must have been at some period or other of the irregular administration of the calendar. The first cause of this omission of the Merkedonius we observe is attributed to superstition; and superstition was the true ultimate cause of the irregularity of the calendar in general: the superstitious dread of the Nundinal Incidence on the new year's day. It should be remembered that B. C. 208 the year distinguished by this coincidence being the first year of the xith Decemviral cycle was intercalary according to rule; and the prejudice against the Nundinal Incidence on the first day of the year, in the first year of the cycle, excited by the nature of the events which happened in the course of this year, might very possibly extend itself to the stated and regular Merkedonius of the year also.

On the whole, it is easy to see that there might have been sufficient in the circumstances and characteristics of this year, B. C. 208, to have given occasion to a prejudice against the regular Merkedonius, as well as against the regular Nundinal incidence, in that year of the cycle. There are three periods in the history of the calendar from B.C. 208 to B.C. 45, to any of which this statement of Macrobius' relating to the omission of the Merkedonius would apply alike; i. B. C. 207 to B. C. 192: ii. B. C. 100 to B. C. 96: iii. B. C. 62 to B. C. 53. But we are entirely of opinion that the first of these is that of which it is really to be understood; both as the first instance of the kind, and as the direct effect of the superstition to which it is attributed, in its first operation on the calendar; and as the longest in point of duration: and on all these accounts as the most remarkable case of the kind.

ii. With regard to the use of the Merkedonius indeed but in an irregular manner; there is no express testimony to the fact of such an use: but intercalary years are on record which demonstrate it as effectually. These recorded instances of intercalations leave no doubt that from B. C. 192

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[c] Saturnalia, i. 14. 267.

downwards the use of the Merkedonius must have been resumed, and must have made a part of the administration of the irregular calendar, as much as of the regular. But they also prove that its use or its disuse from this time forward was subject to no fixed rule, distinct from the general principle which we suppose to have pervaded the irregular administration of the calendar from first to last; that the times of its insertion were indefinite, and left to the discretion of the Pontiffs: that it was sometimes inserted for several years in succession; that its length was indefinite too, and sometimes 22 sometimes 23 days, as the necessity of the case might require. Of the use of this particular instrument in the administration of the irregular calendar, an irregular Merkedonius, we may make ourselves more certain than of that of any other.

iii. With regard to the addition of a day to the mean standard of the Roman year; Macrobius observed in the passage first quoted from him, Atque hoc est quod quidam veterum retulerunt, non solum mensem apud Romanos verum etiam diem interkalarem fuisse[d]. It was found upon record then in some of the ancients that the old Roman calendar had an intercalary day, as well as an intercalary month. A day, under some circumstances, might be intercalated in that calendar as well as a month; long before the Julian correction and the institution of the cycle of the leap day.

Macrobius himself it is true supposed that this intercalary day was the superfluous one in the mean lunar year of 355 days as compared with that of 354 days; and that the final end of its intercalation under any circumstances was only the diversion of the Nundinal incidence from the Nones of the month. We have said enough in disproof of the truth of both these suppositions. They affect however nothing but the question of the opinion and belief of Macrobius himself on these points. He has appealed to no ancient testimony to this supposed mode of the application of some one day; as he has to the fact of its being recognized in the calendar, and of its being applied there in some manner or other. We may reject his statement, concerning the use and application of the day, as merely his own opinion; but we must receive the fact of its admissibility into the calendar, for some proper purpose or other, on the credit of the ancients, who testified to it from their own knowledge. It is impossible however that there could have been any such day in the regular calendar. If it ever had an actual existence it must have been in the irregular calendar.

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[d] Saturnalia, i. 13. 267. Page 462.

Accordingly, after B. C. 208, the addition of a day to what had been before the mean standard of the civil or calendar year is repeatedly discoverable. It was one of the expedients resorted to for the attainment of the end to which the administration of the calendar thenceforward was uniformly directed; and a very important and useful contrivance for that purpose. From B. C. 208 then downwards it might truly be said that the Roman calendar had an intercalary day as well as an intercalary month; and Macrobius might have found that asserted in various authors who were all ancients in comparison of his own time, and yet might not be older in any instance than B. C. 208.

iv. With regard to the case which was the reverse of this, that of the abstraction of a day from the mean standard of the civil year; express testimony indeed to the fact of such abstraction is wanting: but examples are on record of years in the calendar, at various periods of the interval from B. C. 207 to B. C. 45, of each of which it is demonstrable that it could not have consisted of more than 354 days. These cases are abundantly competent to substantiate the fact of this rule. We shall produce some actual proofs of such years by and by.

SECTION III.—*On the seat of the intercalary day in the year of* 356 *days.*

The irregular calendar then was capable of containing years of 354 days, 355 days, 356 days, 377 days, and 378 days respectively; and actually did so in repeated instances, as we shall see hereafter. Of these however none can be considered as strictly new, and as peculiar to the irregular calendar, but those of 354 days and those of 356. The other three descriptions of years, those of 355 days those of 377 days and those of 378 days, were the regular years of the regular calendar; the first of the three, the regular common year, the two last the regular intercalary years. It is not necessary to say any thing more about the admission of these three kinds of years into the irregular calendar also, except in the case of the two last; the proper intercalary years of the old calendar, and if we choose so to consider and call them the proper intercalary years of the irregular calendar also: though the year of 356 days in that calendar, compared with the year of 355 days proper to it also, was intercalary likewise. In these proper intercalary years of the irregular calendar, the use of the Merkedonius made the difference between them and the common year of 355 days in the irregular calendar as much as in the regular; and the Merkedonius in these cases too was inserted in the usual place, in the month of February, after the Terminalia.

In the other description of intercalary years, those of 356 days, (intercalated consequently with an *extra* day not with an *extra* month,) it might be supposed *a priori* that, in conformity to the old rule in that respect, the seat of this *extra* day must have been in the month of Februarius, and after the Terminalia; as it afterwards was in the Julian correction. Nor would we venture to say with too much confidence that such was not the case. It is to be considered however that the introduction of an intercalary day instead of an intercalary month was a new feature in the administration of the intercalary system of the calendar; and as a special case of its kind it might require a special rule. The prejudice excited against the use of the regular Merkedonius was very likely to extend to its regular seat in the calendar also. We have seen reason at least to conclude that the seat of the intercalary day in the irregular calendar was not the same as that of the intercalary month; and that, while the latter was always inserted in the usual place in Februarius, the former was inserted at the end of the year, between the last day of December and the first of Januarius. We shall proceed to lay the grounds of this conclusion before the reader; leaving him to judge of them for himself. But we must first of all say something of the Dies Religiosi of the Roman Calendar.

SECTION IV.—*On the Dies Religiosi of the Roman Calendar.*

It is well known that certain days in the Roman calendar bore the name of *religiosi*, and in point of estimation corresponded to the ἡμέραι ἀποφράδες of the Greek calendar, some account of which was given supra[e]. There were three of these in every month; and four more at least: so that the total amount of such days, before the Julian correction, must have been 40 at least in every common year, and 43 at least in every intercalary year, of the old calendar.

Religiosi enim dies dicuntur, says A. Gellius[f], tristi omine infames impeditique; in quibus et res divinas facere et rem quampiam novam exordiri temperandum est. quos multitudo imperitorum prave et perperam *nefastos* appellant. Festus gives the following account of them[g]: Dies autem religiosi quibus nisi quod necesse est nefas habetur facere. quales sunt sex et triginta atri qui appellantur, et Alliensis, atque ii quibus mundus patet. We shall have occasion to consider the date of the Dies Alliensis hereafter. As to the days Quibus mundus patere putabatur: Mundus ut ait Capito Ateius in libro sexto Pontificali ter in anno patere solet, diebus his, postridie Volcanalia et ante diem sextum Idus Novembres[h]. The text of Festus is defective in this instance. It may be supplied from Paullus[i]: Mundum gentiles ter in anno patere putabant, diebus his: postridie Volcanalia, et ante diem tertium Nonas Octobres, et ante diem sextum Idus Novembris.

The Vulcanalia or feastday of Vulcan in the Julian calendar was marked for the x Kalendas Septembres, August 23 Roman[k]. In the old Roman calendar that date would be Sextilis 21. Consequently these three days of the Mundus patens in the old calendar were Sextilis 22, October 5, and November 8 Roman respectively; in the Julian Calendar, August 24, October 5, and November 8. The other days included under the general name of *religiosi*, but called also *atri* in particular, were three in every month; the *Dies postriduani* of every month, Postridie Kalendas, Postridie Nonas, and Postridie Idus.

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[e] Page 424, note.

[f] iv. 9.

[g] xvii. 435. 18—436. 3. Religiosus: cf. Fragm. p. 44.

[h] xi. 250. 1: cf. Fragmenta, 3.

[i] In loco: cf. also Fragmenta, p. 80. Qui mundus. Also Macrobius, Saturnalia, i. xvi. 279; from whom it appears these seasons of the Mundus patens were sacred Diti Patri et Proserpinæ. He adds from Varro, Mundus cum patet deorum tristium atque inferum quasi janua patet.

[k] Maffæan, Capranic, and Pincian, Calendars, apud Foggini: cf. Varro, De Lingua Latina, v. 57.

Dies postridie Kalendas Nonas Eidus appellati atri, quod per eos dies novi inciperent[l]. In the Prænestine calendar or Fasti Verrii Flacci[m] a note appears to have stood opposite to each of these days in Januarius, (and perhaps in the rest of the months too,) implying that all of them were *atri*, and *ex senatusconsulto*. The fullest account of these days in particular however is given by Aulus Gellius and Macrobius.

Verrius Flaccus in quarto de verborum significatione dies qui sunt postridie Kalendas Nonas Idus, quos vulgus imperite nefastos dicit, propter hanc caussam dictos habitosque atros esse scribit. "Urbe," inquit, "a Gallis Senonibus reciperata, L. Atilius in senatu verba fecit: Q. Sulpicium tribunum militum ad Aliam adversus Gallos pugnaturum rem divinam dimicandi gratia postridie Idus fecisse: tum exercitum populi Romani occidione occisum, et post diem tertium ejus diei urbem præter Capitolium captam esse: compluresque alios senatores recordari sese dixerunt quotiens belli gerendi gratia res divina postridie Kalendas Nonas Idus a magistratu populi Romani facta esset; ejus belli proximo deinceps prælio rempublicam male gestam esse. tum senatus eam rem ad Pontifices rejecit: ipsi quod videretur statuerent. Pontifices decreverunt nullum his diebus sacrificium recte futurum[n]."

Omnes autem postriduani dies seu post Kalendas sive post Nonas Idusve ex æquo atri sunt[o]—Dies autem postriduanos ad omnia majores nostri cavendos putarunt: quos etiam atros velut infausta appellatione damnarunt......horum caussam Gellius Annalium libro quartodecimo et Cassius Hemina

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[l] Varro, De Lingua Lat. v. 59. This explanation of the name of *Atri* as given to these days is singular; and might induce one to suppose that Varro understood *Atri* in the Roman calendar applied to such days to have the same sense as *Atrus* in composition with certain words borrowed from the Etrurian calendar: as quinquatrus, septimatrus, and the like; of which more, we hope, hereafter.

[m] Apud Foggini: cf. ad viii. Id. Januarias: xix Kalendas Februarias: cf. also the Maffæan Cal. ad xix Kal. Februarias.

[n] A. Gellius, v. 17.

[o] Macrobius, Saturnalia, i. 15. 276.

Historiarum libro secundo referunt. "Anno ab urbe condita trecentesimo sexagesimo tertio a tribunis militum Virginio, Manlio, Æmilio, Postumio, conlegisque eorum, in senatu tractatum, quid esset propter quod toties intra paucos annos male esset afflicta respublica . . et ex præcepto Patrum L. Aquinium haruspicem in senatum venire jussum religionum requirendarum gratia dixisse Q. Sulpicium tribunum militum ad Alliam adversum Gallos pugnaturum rem divinam dimicandi gratia fecisse postridie Idus Quinctiles; item apud Cremeram, multisque aliis temporibus et locis, post sacrificium die postero celebratum male cessisse conflictum. tunc Patres jussisse ut ad collegium Pontificum de his religionibus referretur; Pontificesque statuisse postridie omnes Kalendas Nonas Idus atros dies habendos, ut hi dies neque præliares neque puri neque comitiales essent[p]."

So likewise Plutarch[q]: *Διὰ τί τὴν μετὰ Καλάνδας ἡμέραν καὶ Νόννας καὶ Εἰδοὺς ἀνέξοδον καὶ ἀνεκδήμητον τίθενται; πότερον, ὡς οἱ πλεῖστοι νομίζουσι καὶ Λίβιος ἱστορεῖ, μετὰ τὰς Κυϊντιλίας Εἰδοὺς ἃς νῦν Ἰουλίας καλοῦσιν ἐξάγοντες οἱ χιλίαρχοι τὸ στράτευμα περὶ τὸν Ἀλλίαν ποταμὸν ἐκρατήθησαν ὑπὸ Κελτῶν μάχῃ, καὶ τὴν πόλιν ἀπώλεσαν; νομισθείσης δὲ τῆς μετὰ τὰς Εἰδοὺς ἀποφράδος, προήγαγεν ὥσπερ φιλεῖ πορρωτέρω τὸ ἔθος ἡ δεισιδαιμονία, καὶ κατέστησεν εἰς τὴν αὐτὴν εὐλάβειαν τήν τε μετὰ τὰς Νόννας καὶ τὴν μετὰ τὰς Καλάνδας;—Ἀλλὰ Ῥωμαίοις αὕτη μία τῶν ἀποφράδων ἐστὶ, καὶ δι' αὐτὴν ἑκάστου μηνὸς ἕτεραι δύο, τῆς πρὸς τὸ συμβὰν εὐλαβείας καὶ δεισιδαιμονίας ἐπὶ πλέον ὥσπερ εἴωθε ῥυείσης*[r].

Lastly, Livy[s], referred to by Plutarch: Tum de diebus religiosis agitari cœptum; diemque ante diem xv Kalendas Sextiles duplici clade insignem, quo die ad Cremeram Fabii cæsi, quo deinde ad Alliam cum exitio urbis fœde pugnatum, a posteriore clade Alliensem adpellarunt, insignemque rei nulli publice privatimque agendæ fecerunt. quidam, quod postridie Idus Quinctiles non litasset Sulpicius tribunus militum, neque inventa pace deûm post diem tertium objectus hosti exercitus Romanus esset; etiam postridie Idus rebus divinis supersederi jussum: inde ut postridie Kalendas quoque ac Nonas eadem religio esset traditum putant *.

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[p] Macrobius, Saturnalia, i. 16. 280.

[q] Quæstiones Romanæ, xxv.

[r] Camillus, xix. Cf. Dionysius, Hal. ix. 23.

[s] vi. 1.

It appears then from all these accounts that the dies Alliensis and Postridie Idus at least were early proscribed as *atri;* but that there was some doubt among the most learned of the Romans themselves whether the other two *Dies postriduani,* the *Postridie Kalendas* and *Postridie Nonas,* were included in the same proscription at first, or only by degrees and from analogy. Yet it would doubtless contribute to confirm the prejudice against these days in general, and against that of the *Postridie Kalendas* in particular, that even the unfortunate battle of Cannæ was fought Postridie Kalendas (sc. Sextiles, Sextilis 2 Roman) B.C. 216. Ante diem quoque quartum Kalendas vel Nonas vel Idus tamquam inominatum diem plerique vitant. ejus observantiæ an religio ulla sit tradita quæri solet. sed nos nihil super ea re scriptum invenimus nisi quod Q. Claudius Annalium quinto cladem illam vastissimam pugnæ Cannensis factam refert ante diem quartum Nonas Sextiles[t]: which is taken almost word for word from A. Gellius[u].

Now of these *dies atri* or *religiosi* in general Festus and Paullus observe[w]; Itaque per eos dies non cum hoste manus conserebant: non exercitus scribebatur: non comitia habebant: non aliud quidquam in republica nisi quod ultima necessitas admoneret administrabatur. Under these circumstances, it can scarcely be considered probable that Scipio

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* Paullus, apud Festum; xii. 281. 5: Nonarum Iduum Kalendarum posteri dies nuptiis alieni habentur; quoniam hi dies decreto Pontificum atri judicati sunt: quod quotiescunque Romani duces belli gerendi gratia his diebus supplicaverunt male rem publicam gessere. Cf. Macrobius Saturn. i. 15. 276. Festus adds, Item novæ nuptæ a. d. iiii. Kalend. Nonas Idus diem atrum inlucessere observatum est. Cf. Fragmenta, p. 14.

It appears from Festus also, xiv. 336. 1. Penus: that certain days circa Vestalia (v Idus Junias, June 9 Roman) were *religious;* because the Penus or *locus intimus* in Æde Vestæ usually covered up with mats was then opened. Cf. Ovid, Fasti, vi. 249.

It appears also from Cicero, Ad Quintum Fratrem, ii. 4. 5. that the next two days after the Feriæ Latinæ were *religious.* Cf. Macrobius, Saturn. i. 16. 279.

[t] Macrobius, Saturnalia, i. 16. 281. Cf. Macrobius, Saturnalia, i. 16. 279.

[u] v. 17.

[w] xi. 254. 10. Mundus.

Africanus would select such a day as the iv Nonas Decembres, (December 2 Roman,) Postridie Kalendas Decembres, for giving Hannibal battle at Zama, if the choice of a day for that purpose was in his own power; as it is clearly seen to have been in this instance. Yet that must have been the case if the Roman year B. C. 202 consisted of 356 days, and if the intercalary day, which made the difference between such years and the common ones of 355 days, was inserted in Februarius. For then the Kalends of December must have fallen a day later, October 18 not October 17; and October 19 the day of the eclipse, and therefore of the battle, must have fallen on the Postridie Kalendas, December 2 Roman. But if the intercalary day was inserted at the end of the year, it would make no difference to the Kalends of December this year; only to the Kalends of Januarius in the next. The Kalendæ Decembres would be October 17; and the date of the battle would be iii Nonas Decembres, December 3 Roman, October 19 Julian *.

It may be objected however that to suppose the intercalation of the extra day B. C. 202 reserved for the end of December would make a difference to the date of the Saturnalia; and therefore to that of the defeat of Vermina, from which we collected the Roman date of Zama. But this objection would be altogether mistaken. It would make no difference to the meaning of the phrase *Saturnalia prima*, whether there was an extra day given to December or not. It would affect only the style of that day in the calendar. If December had 29 days only it would be the xiv Kal. Januarias.

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* We read indeed in Frontinus, De Strategematis (iv. vii. 30), that the battle of Magnesia, B. C. 190, followed by the victory over Antiochus Magnus, by advice of Scipio Africanus, who accompanied his brother on that expedition, was purposely fought on a *dies religiosus;* which turns out, as we hope to shew hereafter, to have been a *dies postriduanus*, Postridie kalendas, vi Nonas Maii in the calendar of the time being. But this was a very different affair from the battle of Zama; and with a very different enemy from Hannibal. It is possible that Scipio Africanus himself might be superior to this prejudice against a *dies postriduanus*. But were the minds of his soldiers likely to be so? especially after the experience of such a battle as Cannæ? and would a prudent and wary general like Scipio, about to stake every thing on the issue of a battle with Hannibal, pay no regard to the prejudices of his soldiers?

If it had 30 days, it would be the xv Kalendas Januarias. In either case it would still be the 17th of the month *.

And here a curious and possibly an important question presents itself. Did Livy find this date of the victory over Vermina, *Saturnalibus primis*, in his original authorities and so expressed; or did he himself throw its proper meaning, December 17, into that form on purpose? In our opinion, it is much the most probable supposition that he found it recorded in those terms. If so there was already a *Saturnalia prima*, and consequently a *Saturnalia secunda* at least, as early as the battle of Zama, B. C. 202; and yet the Saturnalia according to Livy had been first attached to the same day only 15 years before, B. C. 217: and that day the stated date of their commencement at least ever after; December 17 Roman. But let us suppose that December began to have 30 days B. C. 207. It must consequently have begun from the same time to have a xv Kal. Januarias, which now corresponded to the 17th of the month; the stated date of the Saturnalia. And yet it had still a xiv Kalendas also; which had always been the date of the Saturnalia until then. Is it therefore inconceivable that from this time forward the Saturnalia might begin to be kept on two days; the xv and xiv Kalendas Januarias: on the former because it corresponded to the 17th of the month, on the latter because it was the old and original date of the feast? If not, then the distinction of a Saturnalia prima, and a Saturnalia secunda, would begin to be matter of fact B. C. 202; and it would not be surprising to find the defeat of Vermina, December 17 Roman, B. C. 202, dated on the Saturnalia prima, and not on the 17th of the month *.

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* It may perhaps be objected too that the Saturnalia prima itself was a *dies religiosus*. Macrobius, at least, i. 16. 279, contends that the Saturnalia, being a *dies festus* or *feriatus*, was *religiosus ad prælium*. Festus too observes, xiv. 365. 3. Præliares dies appellantur quibus fas est hostem bello lacessere; erant enim quædam feriæ publicæ quibus nefas fuit id facere. This must be understood of days on which they might lawfully offer battle of their own accord; for they might accept an offer of battle, made by an enemy, under any circumstances. Sciendum est tamen, says Macrobius, (*loc. cit.*) eligendi ad pugnandum diem Romanis tunc fuisse licentiam, si ipsi inferrent bellum: at cum exciperent nullum obstitisse diem quo minus vel salutem suam vel publicam defenderent dignitatem. This objection however would be overruled by the matter of fact. Whether the Saturnalia prima was a *dies feriatus*, and therefore a *dies religiosus ad prælium*, or not; yet Vermina *was* encountered and routed by Scipio, on that day.

SECTION V.—*On the suppression of a day in years of 354 days.*

With regard to the abstraction of a day from the mean length of the civil year, 355 days, it was probably done by suppressing the 28th of Februarius. Even in such cases the length of that month would still be analogous to that of the Merkedonius in years of 377 days. The test or criterion of years of this description, which contained 354 not 355 days, on this principle, would be the absence of a xvi Kalendas Martias in them; which Februarius, as a month of 28 days, must ordinarily have possessed. We have no positive case to appeal to, known from testimony, of a Roman Februarius which actually wanted such a day; but circumstantial evidence is in existence, supplied by the letters of Cicero to Atticus, that such was the case with the Februarius of U. C. 705 B. C. 50–49. There is a regular series of these letters, from the time of Pompey's leaving Rome that year to the date of his departure from Brundisium to Epirus, in which almost every day in the Roman Februarius, but this one of xvi Kalendas Martias, is found on record: and in particular the xv Kalendas [x], the xiv Kalendas, the xiii Kalendas [y], and the iii Idus Februarias [z]. And there are other proofs, supplied by the chronology of contemporary events, that Februarius that year could have consisted of 27 days only. We may conclude then with every appearance of probability that there was no xvi Kalendas Martias in that month that year;

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* The fact for which we are contending, the intercalation of the extra day in the old calendar at the end of the year, not in February, will be placed out of question, we hope, by the peculiar rule of the actual administration of the Julian correction itself for the first 36 years during which it was irregularly administered; when that comes to be explained. Possibly also by the dates of certain Triumphs hereafter to be considered.

Scaliger too was of our opinion that the extra day, of which we are speaking, was intercalated at the end of December; which in such years had 30 days. See De Emendatione, v. 459 B.

[x] viii. 11. [y] viii. 12. 6–11. [z] ix. 10.

that Februarius had only 27 days, and that the year had only 354: and that both these things were the consequence of the want of this one day, the xvi Kalendas Martias.

It may be demonstrated however, by the help of two facts, each of them well authenticated, that for some time before the Julian correction the Roman calendar must have contained years of this abridged standard, 354 days instead of 355. One of these is the fact that the Kalends of January were Nundinal B. C. 52; the other is the fact that the Kalends of January were Nundinal also B. C. 45. The sum total then of days in the calendar between the Kalends of January B. C. 52 and the Kalends of January B. C. 45 must have been such as to contain a certain number of Nundinal cycles without any remainder.

Now we know the length of two of these years, B. C. 52 and B. C. 46. The former contained 377 days, the latter 445 days. Let the sum of days in each of the intermediate years be taken from our own Roman calendar.

Sum total of days in the Roman Calendar, from the Kalendæ Januariæ U. C. 702 B. C. 52 *to the Kalendæ Januariæ* U. C. 709 B. C. 45.

U. C. 702	B. C. 52	Sum of days 377
703	— 51	— 354
704	— 50	— 354
705	— 49	— 354
706	— 48	— 354
707	— 47	— 354
708	— 46	— 445
U. C. 709	B. C. 45	Sum collected 2592

Now this sum = 324 × 8. Each of these facts then being taken for granted, viz. that the Kalends of January were Nundinal B. C. 52, and again, B. C. 45, and that B. C. 52 contained 377 days and B. C. 46 445 days; each of the intermediate years must have contained 354 days. If any of them contained a day more or a day less than 354, the Kalends of January might have been nundinal B. C. 52, but they could not again have been so B. C. 45. Had any of them indeed contained *eight* days more or *eight* days less than 354, January 1 Roman B. C. 45 might have been Nundinal; but we should have been involved in that case in other difficulties of a still more serious kind, relating to the

Julian date of the Kalends of January in the first Julian year at Rome. On the whole we consider the above to be a conclusive proof that, at this period in the administration of the Roman calendar, years of 354 days were admissible into the calendar, and for a number of years in succession. And if at this period, no doubt at any former period of the same irregular administration. In fact we have seen every reason to conclude that, long before the Julian correction, the actual length of the civil year was 354 days quite as often as 355.

SECTION VI.—*On the order in which the above Rules appear to have been brought into operation.*

i. Among these rules and contrivances then, for the direction and administration of the calendar, which the change of circumstances prescribed, the first which was actually applied appears to have been that of dispensing with the regular intercalary month, and yet increasing the length of the year by a day. This began to be the rule of administration B. C. 207; and continued to be so down to B. C. 201—200, the year after the close of the second Punic war; the last of the years, for that time, so administered.

The effect of this rule on the Nundinal character of Januarius was to make it alternate regularly, as long as the rule continued in force, from 8 to 4, and from 4 to 8, in successive years. The Nundinal character of B. C. 207 itself was 8; and that was also the regular character of that year in the regular cycle: and as this year turned out to be the date of the battle of the Metaurus, and of the defeat and the death of Asdrubal, the Nundinal character of that year was as likely to be considered lucky and auspicious as that of the year before unlucky and ominous. For it was from the date of this victory that the Republic took heart, and began to cherish a good hope of the yet prosperous conclusion of the war.

Testis Metaurum flumen et Asdrubal
Devictus et pulcher fugatis
Ille dies Latio tenebris
Qui primus alma risit adorea[a].

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[a] Horace, iv. 4. 38.

The recession of the civil Roman year on the proleptical Julian year under such circumstances would be nine days in every common year of the cycle of leap-year, and ten days every leap-year; and if it went on without interruption from B. C. 207 to B. C. 202, (as it appears to have done,) it could not fail to amount to 46 days exactly at the date of the battle of Zama: as we have seen that it actually did.

ii. The abstraction of a day from the length of the year appears to have been the expedient next resorted to; beginning B.C. 200 and continuing down to B.C. 193—192. The rule of administration for this period was to have one year of 354 days and two of 355, alternately. The effect of the rule on the Nundinal character of Januarius was to cause it to recur, in the same order, every three years; and that order, 8, 6, 3: as the inspection of our calendar will shew.

iii. The Merkedonius properly so called was first resumed B. C. 192–191; when the Kalends of January had fallen back as far as August 4. And the fact of its resumption at that time is confirmed even by the opinion or statement which Macrobius attributes to Fulvius Nobilior[b]; that *this* year, the consular year of Manius Acilius Glabrio, U. C. 563 of Varro, U. C. 562 of the Fasti Capitolini, was the first instance of an intercalary year absolutely: which could not be true of this year except as the date of the actual resumption of the use of the Merkedonius after a long period of intermission.

iv. From this time forward each of the above-mentioned expedients, whether the addition of a day to the year, or the abstraction of a day from the year, or the insertion in the calendar of an extraordinary month sometimes of 22 days sometimes of 23 days, and sometimes for several years in succession, continued to be employed in the administration of the calendar; but *pro re nata*, or according to circumstances: i. e. after a manner which does not admit of being generally and summarily stated here, but will appear at one glance from the inspection of the calendar.

U.C. 601 B.C. 154–153, by virtue of these different modes of treating and administering the calendar down to that time, the Kalends of January had been brought to their ori-

[b] Saturnalia, i. 13. 267.

ginal epoch B. C. 209, December 29, within *one* day; i. e. to December 28 B. C. 154. It appears from various authorities, as we shall see hereafter, that *this* was the year in which the consular ingress was first fixed to the Kalends of January, instead of the Ides of March; remaining ever after attached to them. And though some of our authorities also would seem to ascribe this change of the official rule to the Bellum Celtibericum or Lusitanicum, which broke out the same year, it is just as probable that the coincidence which we have mentioned, characteristic of it, (viz. the return of the head of the calendar as nearly as possible to its original epoch just at the time when it first became irregular,) had something to do with it also.

v. As the irregularity originally admitted into the calendar bore date *de facto* in the first year of the regular cycle, B. C. 208; the irregular period of the calendar is distributable into cycles of 24 years each, as much as the regular. B. C. 153 was the eighth year of the third irregular cycle; and from that time forward down to the last year of the fourth, B. C. 113, it may be seen that the administration of the calendar on the whole approached as nearly to the character of regular as under the circumstances of the case was possible. The extreme limits of the Kalends of January, for the whole of this period, were not later than January 26 on the one hand nor earlier than December 9 on the other: and as far as we have the means of judging from contemporary history, it confirms this state of things; by giving us reason to conclude that the civil Roman year of this time must have very nearly coincided with the natural.

Through the fifth irregular cycle, B. C. 112–89, the Kalends of January fluctuated between November 29 their earliest term and January 24 their latest. Through the sixth, B. C. 88–65, they did so between December 1 and March 6. The seventh cycle was an imperfect one, extending from B. C. 64 only to B. C. 46 the year of the Julian correction. During this part of it, the Kalends of January advanced as far forward as March 11 at one time; and fell back as low as October 11 at another. As the final result of all the preceding arrangements and details of the intermediate years from B. C. 208 to B. C. 46, the Kalends of

January in the first Julian year U. C. 709 issued out at last in December 30 B. C. 46: of which more we trust will be said hereafter.

SECTION VII.—*On the truth and accuracy of our Calendar for the Irregular Period.*

The confirmation of the truth of our calendar for each of these periods by the necessary proofs is a very important point; but one which must be reserved for the present. We are well aware that the arrangements and details of each, which we have proposed, at first sight must appear arbitrary and positive; but so must the arrangements actually adopted at the time for each of the same periods have been: arbitrary and positive like ours. We have explained on what principle they all proceed; viz. that of diverting the Nundinal incidence from the Kalends of January, except in those cases in which it is known that it actually happened upon them: and we have also shewn that for such an end and purpose as that perpetually only such and such means and expedients in general could be devised and could be adopted; means and contrivances which must have suggested themselves to the actual administrators of the calendar at the time as spontaneously as they did to us.

At the same time we wish it to be understood that these arrangements of ours are proposed as the actual details of the Roman calendar, through the most intricate period of its history, only so far as they can be considered *indispensable* to the end and purpose which we suppose to have been kept in view all through its actual administration for the same length of time; and that, it is evident, must be rather in the general result and effect of our arrangements, taken collectively, than in the details of their component parts. It is very possible that different particular arrangements might be equally compatible with the end in view, at particular periods of the general administration; but not so as to alter the result of the whole. If changes are made at particular periods, it must be on the principle of compensation; i. e. of giving in one instance as much as should be taken away in another. In this case, if our arrangements were to be altered in one part they must be altered in another; and yet every thing must continue the same on the whole: on which principle it would soon be found from experience that the actual arrangements of our own scheme afforded no scope nor license for change or variation at all, except within very narrow limits.

It is to be considered also that there are various points of time in the course of this irregular period at which the details of our calendar must be regarded as fixed; because they are otherwise determined. Limits are prescribed to the possible liberty of departure from our arrangements sometimes by the course of the Nundinal cycle, and by the Nundinal character of a given year which happens to be known; sometimes by the interposition of intercalary years which are known; sometimes by years which are known to have been common; sometimes by historical dates which fix a cardinal point in a given year, and through that the rest of the year, and reflexively and prospectively too to a certain extent determine the arrangements and details even of the years before and after them. The date of Zama, as determined by the eclipse of October 19 B. C. 202, serves that purpose for the years between it and B. C. 208. The solar eclipse of March 14 B. C. 190, and the lunar eclipse of June 21 B. C. 168, are of equal importance to the details of the calendar in the midst of which they come. From the light too which the former reflects on the actual state of the calendar at the time, we learn that the true point of time when it was most irregular was not just before the Julian correction but just before this eclipse; for then the Kalends of January were falling on August 16, and the year before on August 4; while just before the Julian correction they were not falling later than October 11. There are other years too, in which the accuracy of our arrangements may be taken for granted, especially just previously to the Julian correction; B. C. 63, B. C. 51, B. C. 50, B. C. 49, B. C. 47, B. C. 46: and to the history of that correction these are the most important of all.

SECTION VIII.—*On the cases of exception to the rule of the Nundinal Incidence through the Irregular Period.*

The exceptions however to the above rule of the Nundinal

Incidence, which we profess to take as our only safe guide in threading the mazes of the irregular administration of the calendar, are carefully to be taken into account as we proceed; for some there were, which are actually on record. The only question which can be raised on this point is Whether these historical cases of exception are all which must be supposed to have actually occurred? And to this question, as every one must see, we scarcely know what answer to return. Did we possess the whole of the Roman history of Dio Cassius we might have been able to pronounce upon it; for that historian in particular seems to have paid special attention to these cases of the Nundinal Incidence on the Kalends of January, and to have left none unnoticed which came in his way. And forasmuch as even he specifies only one example of this kind in the strictly irregular period of the calendar, and Macrobius only one more in a part of the same period which is wanting in him; upon the whole we are inclined to believe that these exceptions to the rule were very rare in their occurrence: and that in those which are actually on record for the irregular period we have probably all which actually occurred.

There was however one exception to the rule, which will perhaps appear as extraordinary as any, and yet is one of the best ascertained of all. We mean the Nundinal Incidence on the Kalends of January in the first Julian year itself. It is an obvious question Whether that was accidental or designed? And, if it was not accidental, Whether the mind of Cæsar himself was superior to the prejudice which had so long possessed the minds of his countrymen, that one form of the Nundinal Incidence was more lucky or more unlucky than another? or was the course of things both before, and up to, the completion of the Julian correction such that even this coincidence at last could not have been avoided? Suetonius indeed tells us that Julius Cæsar in particular was never deterred by any superstitious scruple from doing what required to be done at the right time and in the right way[c]; and yet we are disposed to think that the true explanation of this effect is that it could not be helped. The years which preceded the correction, and the year of the correction itself, were times of great confusion; during which the administration and details of the calendar could scarcely have been duly attended to. Cæsar, the head of the Pontifical college, was absent from Rome; and most of his colleagues in office during the civil wars had been arrayed on the side of Pompey in open hostility against him. He returned it is true to the city from Africa, B. C. 46, in time to put the finishing hand to the correction; but not in time to superintend the preliminary part of the process. The superstitious dread of the Nundinal Incidence on the Kalends, as we hope to see hereafter, was as strong immediately after the correction as ever before it. If therefore the Kalends of January in the first Julian year were Nundinal, (as they certainly were,) it was probably the effect of circumstances. It might undoubtedly have been prevented by giving a day more or a day less to the year of Confusion; but that would have led to other mischief in its consequences: such as changing the cycle of the leap-day in the Julian year, or disturbing the relation of the civil to the natural year in the cardinal points of each; both which were things of much greater consequence than the permission of a temporary inconvenience: and Cæsar's characteristic decision and firmness of purpose were shewn in choosing the least of two evils; the Nundinal Incidence even on the Kalends of the first year of his correction, in preference to the derangement and disturbance of the first principles of the correction itself.

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[c] Vita, lix. 1.

DISSERTATION VI.

Verification of the Roman Calendar by examples of Intercalary years.

CHAPTER I.

Section I.—*Preliminary observations.*

The first of the general proofs in verification of the above account of the Roman calendar, both the regular and the irregular, to which we propose to direct the attention of the reader, is the course and succession of the intercalary year in each; as attested by actual examples. But before we enter on this argument it is proper to observe that, as the rule of intercalation in every regular lunæsolar cycle is necessarily uniform, the fact of an intercalation in a given instance is a proof not only of the accuracy of the calendar for that particular year, but of the rule of the calendar in general. The fact established of one year, at a particular period of the cycle, must be equally true of every other under the same circumstances. In an irregular calendar, on the contrary, though intercalations at certain times may be indispensable, yet, as they are arbitrary and subject to no fixed rule, the fact of an intercalary year howsoever well attested can confirm nothing first and properly but its own year. Whether it can prove any thing of the actual details of such a calendar, before or after its own year, must depend on the circumstances of the case.

In the application too of this particular proof to our Roman calendar in general, we must leave the Nundinal calendar of

Romulus entirely out of the question, as excluding the principle of intercalation altogether; though some of the ancients as we saw[d] ascribed even the first introduction of the intercalary system of the calendar to Romulus. The application of any argument of this kind is restricted to the calendar of Numa, to that of the Decemvirs, and to the Irregular calendar properly so called. The intercalary system of each of the former, as alike coming under the description of the regular calendar for the time being, has been explained[e]. It may be proper however briefly to recapitulate the points of agreement and of disagreement in the intercalary rule of either compared with that of the other.

i. The intercalary rule of both these calendars agreed i. In the number of intercalations in every period of 24 years in each; four in the first eight, four in the second, and three in the third. ii. In the length of the intercalary month in each, 22 or 23 days; and in the order of its alternation: first 22 days and then 23; not 23 and 22. iii. In the seat of the intercalary month, as inserted in Februarius in each, and after the 23d of Februarius in each.

ii. The intercalary rule of the one differed from that of the other, i. In the circumstance that in the cycle of Numa the even years for the first two periods of eight years were intercalary, and in the cycle of the Decemvirs the uneven years. ii. In the circumstance that in the cycle of Numa the second the fifth and the eighth years of the last period of eight years, the eighteenth, the twenty-first, and the twenty-fourth, years of the cycle itself, were intercalary: in the cycle of the Decemvirs the first the third and the sixth years of the last period of eight years, the seventeenth the nineteenth and the twenty-second of the cycle itself, were so. iii. In the fact that the Merkedonius along with the five remaining days of Februarius constituted the xiiith month in the calendar of Numa and the iiid in that of the Decemvirs.

We shall now proceed to the details of the proof itself from actual examples of intercalary years in each of these calendars; beginning with that of Numa.

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[d] Supra, P. 75. Diss. ii. ch. i. sect. v. Cf. Macrobius, Saturnalia, i. 13. 267.

[e] Supra, Diss. iii. ch. iii. sect. ii. P. 270. Diss. iv. ch. i. sect. xi. P. 416.

SECTION II.—*Verification of the Calendar of Numa by examples of Intercalary years.*

i. U. C. 283 Varr. 282 Cap. 280 Polyb.
Coss. { L. Pinarius Rufus Mamercinus.
P. Furius Fusus[f].
B. C. 471. Cycle xi. 2. 377 days.

Quando autem primum interkalatum sit varie refertur . . . Fulvius . . . id egisse Manium consulem dicit ab urbe condita anno quingentesimo sexagesimo secundo, inito mox bello Ætolico. sed hunc arguit Varro, scribendo antiquissimam legem fuisse incisam in columna ærea a L. Pinario et Furio consulibus, cui mentio interkalaris ascribitur[g].

The testimony then of this inscription ascertained the consular year of Pinarius and Furius to have been intercalary. The question is only what year that was. According to Varro, it must have been U. C. 282 B. C. 472. But the Varronian date of the Regifuge and of the first Consulate is one year too high in the Æra Vulgaris; B. C. 509 instead of B. C. 508. The consular years, according to Varro, from the first downwards to this of Pinarius and Furius, are consequently one year in defect in the æra of the city. According to Dionysius, who dates the first consulate B. C. 508, the year of Pinarius and Furius was B.C. 471[f]: and this we believe to be the truth, as we hope to shew more at large on a future occasion.

This consular year then coincided with the second year of the eleventh cycle of Numa; and therefore it must have been intercalary by the law of the cycle. If it entered on the Kalends of January, (of which too we shall have more to say hereafter,) the intercalary month would be the last month of this official year; a Merkedonius of 27 days: in the course of which the law alluded to by Varro must have been passed. The limits of this Merkedonius were January 23 and February 18 both inclusive, B. C. 470; between which the law was passed.

[f] Cf. Dionys. Hal. ix. 40. (cf. 37.) Livy, ii. 56.

[g] Macrobius, Saturnalia, i. 13. 267.

ii. U. C. 295 Varr. 294 Cap. 292 Polyb.

Coss. { P. Valerius Poplicola ii.
C. Claudius Inregillensis Sabinus[h].

B. C. 459. Cycle xi. 14. 377 days.

The proper date of this consular year too in the Æra Vulgaris, according to Dionysius, was B. C. 459; one year lower than the Varronian in the same æra B.C. 460. It is the date of the surprise of the Roman Capitol by Appius Herdonius[i]. Among the events which arose out of that occurrence, one was the death of the consul Valerius[k], who fell in the attempt to recover the Capitol; and another was the appointment of a consul suffectus in his stead for the rest of the year[l]. It is agreed that this consul suffectus was L. Quinctius Cincinnatus[m]; and it is clear that he must have succeeded to Valerius just dead: not to his colleague Claudius still living. It is therefore singular that in the Fasti of Almeloveen this state of the case is reversed, and Cincinnatus is made to succeed to Claudius; contrary to the testimony both of Dionysius and of Livy and of the Fasti Capitolini also.

The proceedings, relating to the seizure and to the recovery of the Capitol, according to Dionysius could not have lasted more than three or four days[n]. It was surprised at midnight[o]. The next day is mentioned down to the δείλη ὀψία[p]. Then the day after; and the continuation of the efforts made for the recovery all that day and the next night, down to the third day from the seizure[q]. And then it was that Valerius the consul fell.

That Cincinnatus was appointed to succeed him appears from both our historians[r]; and though the time of this appointment is not specified by Dionysius, it might be collected even from him that it must have been about seed-time[s], when winter was at hand[t]: and about the usual time of the Tribunician comitia[u]. But this omission in him is supplied by Livy; who tells us that, after the death of Valerius, and a struggle for some time between the different parties relating to the law of Terentillus Arsa, Cincinnatus was at last made consul suffectus in the month of December Roman; immediately to enter on office. Hæ tenuere contentiones usque ad comitia consulis subrogandi. Decembri mense summo patrum studio L. Quinctius Cincinnatus pater Kæsonis consul creatur, qui magistratum statim obciperet[w].

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[h] Dionysius, x. 9. Livy, iii. 15.

[i] Dionysius, x. 14—16. Livy, iii. 15—18.

[k] Dionysius, x. 16. Livy, iii. 18. Cf. Augustin, De Civ. iii. 17.

[l] Dionysius, x. 17. Livy, iii. 19.

[m] Dionysius, x. 17. Livy. iii. 19.

[n] Dionysius, x. 15. [o] Ibid. 14.

[p] Ibid. 15, 16.

[q] Ibid. 16. Cf. Livy, iii. 15—18.

[r] Dionysius, x. 17. Livy, iii. 19.

[s] Ibid. Cf. 24.

[t] Ibid. x. 18.

[u] Ibid. 19. Cf. Livy, iii. 21.

The proceedings of Cincinnatus after this, as related by Livy[x], shew that his appointment could have had little else in view except to stop the progress of the obnoxious law for that year; or to nominate a dictator. They prove also that both the consular and tribunician year were about to expire soon after he entered on office. Ultimately, having carried the point relating to the law, he appointed consuls for the next year; refusing to be reelected himself[y].

Under these circumstances a consul suffectus in the month of December, yet with the expectation of remaining in office long enough to answer these different purposes, at first sight does not appear consistent. Our calendar serves to explain it; shewing that B. C. 459 (Cycle xi. 14) the consular year of Valerius and Claudius by the rule of the cycle would be intercalary, and would have a Merkedonius of 27 days, and 23 days in Februarius, besides more or less of the month of December: even after the appointment of Cincinnatus. From the Kalends of December this year to the Kalends of January the next, the interval could not be less than 79 days *. The

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* The date of the Roman December, Cycle xi. 14 of Numa, was December 14 B. C. 459. The circumstances of the surprise and of the recovery of the Capitol left on record are such as strongly to suggest the inference that it was surprised at or about the first lunar dichotomy, when the moon would be setting about midnight; and was recovered when the moon was approaching to the full. Our general lunar Tables, Period xii. Cycle xi. 12, B. C. 459, shew that the new moon of Marchesvan bore date November 9 at midnight, and that of Chisleu December 9 at midnight: the latter only five days before the Kalends of December, Dec. 14 at midnight. We should be entirely of opinion that the particulars relating to the seizure and to the recovery of the Capitol are to be comprehended between Nov. 16 and Nov. 23; the first dichotomy and the full moon of that month. And as Cincinnatus must have been in office before the ex-

[w] iii. 19. [x] Ibid. 19—22. [y] Livy, iii. 21 : 22. Dionys. x. 19 : 20.

only question will be whether the consular year at this time still began on the Kalends of January, or (as it is seen to have been beginning not many years later) on the Ides of December. And on this subject more will be said elsewhere.

These two examples of intercalary years are all which we have to produce in direct illustration of the calendar of Numa. The first appears to be certain: the second is extremely probable. We shall now pass to the calendar of the Decemvirs.

SECTION III.—*Verification of the Decemviral Calendar by examples of Intercalary years.*

i. U. C. 306 Varr. 305 Cap. 303 Polyb.
B. C. 449—448. Cycle i. 1. 377 days.

Tuditanus refert libro tertio magistratuum Decemviros qui decem Tabulis duas addiderunt de interkalando populum rogasse. Cassius eosdem scribit auctores[z].

This case of an intercalation has been considered[a]. It proves that the first year of the Decemviral cycle was intercalary; and therefore the last year of that of Numa. This first year being B. C. 449—448; it follows that B. C. 449—448 Cycle i. 1. of the Decemviral correction was intercalary.

ii. U. C. 354 Varr. 353 Cap. 351 Polyb.
B. C. 401—400. Cycle iii. 1. 377 days.

If Cycle i. 1 (B. C. 449—448) of the regular Decemviral calendar was intercalary, Cycle iii. 1 (B. C. 401—400) of the same, according to rule, must have been so too. It is proved to have been so by the date of the eclipse on the Nones of June, (June 5 Roman,) U. C. 350 fere, according to Cicero, U. C. 351 = 354 ex Palilibus, according to the truth[b]. If you reckon from the Kalends of January, U. C. 354, December 29 B. C. 401, and allow for a Merkedonius of 27 days,

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piration of the Tribunician year, (Dec. 10 Roman, Dec. 23 Julian this year,) his election was very probably about a month later; between Dec. 16 and Dec. 23, the first dichotomy and the full moon of that month also.

[z] Macrobius, Saturnalia, i. 13. 267.

[a] Supra, p. 408. Diss. iv. ch. i. sect. viii. Ibid. sect. ix. p. 410.

[b] Supra, p. 128. Diss. ii. ch. ii. sect. viii.

February 19 to March 18, B. C. 400; the Nones of June the Roman date of this eclipse will fall on June 21 B. C. 400, the Julian date of it also; but not otherwise. Two things therefore are demonstratively proved by this example. First, that the first year in the Decemviral cycle was intercalary, and therefore by parity of reason the odd years of the cycle in general; i. e. for the first sixteen years at least. Secondly, that the stated length of the first intercalation in the Decemviral cycle was 22 days not 23. Consequently that the first Merkedonius in that cycle was *cavus*. From which it would follow that the last intercalary month in the cycle of Numa must have been *cavus* too; a month of 27 days not 28: and the amount of the intercalation must have been 22 days not 23.

iii. U. C. 432 Varr. 431 Cap. 429 Polyb.
Coss. { Q. Fabius Maximus Rullianus.
L. Fulvius Curvus[c].
B. C. 322. Cycle vi. 7. 378 days.

The particulars of the campaign in Samnium this year, it appears from Livy[d], were differently represented. According to Livy the Roman commander was a Dictator, C. Cornelius Arvina, whose appointment he mentions previously[e]; according to others they were the two consuls[f]. It is agreed that there was a Dictator this year; and that Arvina was the person[g]: only, according to some authorities, Ludorum Romanorum caussa; because the Prætor L. Plautius was ill: in which case he must have been nominated about the usual time of those games, the Roman September. It was agreed too that one Triumph or more was celebrated this year for successes in Samnium; according to Livy[f], by the Dictator Arvina; according to others, by the two consuls[f].

With these last authorities the Fasti Triumphales must have agreed; *two* Triumphi acti being noted therein U. C. 431 of their own æra:

i. L. Fulvius Curvus Cos. De Samnitibus. Quirinalibus.
ii. Q. Fabius Maximus Rullianus Cos. De Samnitibus et Apuleis[h] xii Kal. Martias.

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[c] Livy, viii. 38.
[d] viii. 38—40.
[e] Ibid. 38.
[f] Ibid. 39.
[g] Ibid. 40.
[h] Cf. the Auctor De Viris Illustribus, Q. Fabius Rullianus.

This second triumph it appears was celebrated De Apuleis as well as De Samnitibus; and Livy himself tells us[1] that, even after the victory gained by both consuls in conjunction over the Samnites, according to some accounts Fabius in particular made a successful expedition into Apulia.

The consular years at this time according to rule entered on the Ides of December; and, if the year of these two consuls was no exception to the general rule in that respect, these two triumphs must have been celebrated within three months after the beginning of the official year, and in U.C. 430 of the Capitoline æra, not U.C. 431: B.C. 322 *ineunte*. But the rule of the ingress at this time, and indeed at all times, admitted of great exceptions; and it is most consistent with the particulars recorded of this year, to suppose that it really entered sooner than usual, and in B.C. 323; so as to allow time both for the campaign in Samnium, and for the campaign in Apulia after it also. The true date of these triumphs at last would consequently be B.C. 322; one on the Quirinalia, the other on the xii Kalendas Martias. And as the calendar date of the Quirinalia was always nominally the same, both in the common and in the intercalary years of the cycle, viz. the xiii Kalendas Martias; it would follow from the dates of these triumphs respectively that they must have been celebrated on consecutive days: one on the xiii Kal. Martias and the other on the xii Kal. Martias. But it would follow also that if they were both celebrated on these days, B.C. 322, both were celebrated in an intercalary year, and both in the intercalary month of that year; for B.C. 322, cycle vi. 7 of the regular calendar, would be intercalary according to rule, and have a Merkedonius of 28 days*. It is no objection that the date in the second instance is expressed by xii Kalendas Martias absolutely. There are instances in these Fasti themselves of dates similarly expressed in intercalary years, Pridie Kalendas Martias and x Kalendas Martias; which are to be understood of the days so styled in the Merkedonius, not in the month of Februarius: and there are examples of the same idiom in Livy also.

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* The Quirinalia in the style of the calendar were nominally always the same, xiii Kalendas Martias. But, in the common years of the cycle, xiii Kalendas Martias would denote February 17 Roman; in the intercalary years, when the Merkedonius was one of 28 days, it would mean the 17th of the Merkedonius, and when the Merkedonius consisted of 27 days, it would denote the 16th of that month. The Quirinalia on this principle might denote either the 17th of Februarius or the 16th of the Merkedonius or the 17th of the Merkedonius. In the extant remains of the Fasti Triumphales there are six triumphs at least which appear to have been cele-

[1] viii. 39.

iv. U. C. 495 Varr. 494 Cap. 492 Polyb.
B. C. 259. Cycle viii. 22. 377 days.

A triumph is noted in the Fasti Triumphales, as follows.

C. Duilius Cos. Primus Navalem De Sicul.
Et Classe Pœnica Egit An. CDXCIII. K. Intercalar.

And the fact of this triumph in particular is as well authenticated as that of any in this collection.

C. Duilius was consul along with Cn. Cornelius Scipio Asina U. C. 494 Varr. U. C. 493 Cap. B. C. 260. The official ingress at this time was certainly the Ides of March. This triumph therefore was celebrated at the end of his year; U. C. 493 ex Palilibus still of the reckoning of the Fasti Triumphales, though U. C. 494 of their æra dated from the Kalends of January, and U.C. 495 of Varro, similarly dated also: B.C. 259 of the vulgar æra, not B.C. 260. It ascertains the fact of a Merkedonius at the end of his year; on the first day of which the triumph took place.

brated on this *one* day in the calendar, in preference to any other; probably because being sacred to the Roman Quirinus, the Roman Mars, it was considered the most appropriate for the celebration of successes in war, which could be selected for the purpose. The most observable circumstance however of these triumphs so dated is that when each is reduced to its proper year, and its proper place in the order of the cycle of the calendar (whether the regular or the irregular one alike) of the time being, they are all found (with one exception only) to fall in an intercalary year, and to have been celebrated on the 16th or 17th of the intercalary month; denoted by the Quirinalia in those instances. We cannot help suspecting from this coincidence, which is something remarkable, that the compilers of these Fasti purposely chose to date these triumphs simply on the Quirinalia, in order to denote the xiii Kal. Martias in intercalary years as properly as in common years. Consequently that triumphs so dated where they occur are so far an argument of intercalary years. See the Nundinal Cycle, infra.

By our calendar, cycle viii. 22, B.C. 259 *was* intercalary. The date of the triumph, Kalendis Interkalaribus, Merkedonius 1, was February 28 B.C. 259. It is an important instance, because it ascertains that the sixth year in the last eight years of the cycle of the Decemviral correction was the seat of an intercalation; and, from the fact thus ascertained of the sixth, there is every reason to infer the same of the third in the same eight years, the nineteenth year of the cycle.

v. U. C. 519 Varr. 518 Cap. 516 Polyb.
B. C. 235. Cycle ix. 22. 377 days.

A triumph is recorded in the Fasti Triumphales of this year, Idibus Interkalaribus, and De Liguribus; by the consul L. Cornelius Lentulus Caudinus, as the name is read in Sigonius: by the consul P. Cornelius Lentulus Caudinus, as it appears to have been read by Marliani, and as it is read by Piranesi. The year of the city is partially obliterated in Sigonius, DXV.. though Marliani has it DXVIII. and Piranesi DXVII. There is however an entire date just before, An. U. C. DXII, that of the triumph of Q. Luctatius or Lutatius Cerco, and that of Aulus Manlius Torquatus Atticus, both in the same consular year; and as there are only five pairs of consuls between those triumphs and this, if the date of the former was U. C. 512 of the Capitoline æra that of this must have been U. C. 517 of the same. And it is a further confirmation of this year, that it was also the date of some games celebrated at Rome, which Hiero king of Sicily is said to have attended in person[k]; for these as we hope to see hereafter were the Ludi Sæculares, actually celebrated U. C. 518 of Varro, U. C. 517 of the Capitoline æra.

Now since the name of the party who celebrated this triumph as consul, (consequently still in his consular year,) according to Marlianus and Piranesi was P. Cornelius Lentulus Caudinus, not L. Cornelius Lentulus Caudinus, and since even Sigonius agrees with Piranesi in the year of the city (U.C. 517 Cap.) in which the triumph was celebrated; we may safely conclude that the true year of this triumph was the consular year of P. Cornelius Lentulus Caudinus and

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[k] Cf. Eutropius, iii. 1.

C. Licinius Varus, U. C. 518 Varr. U. C. 517 Cap.: not that of L. Cornelius Lentulus Caudinus and Q. Fulvius Flaccus, which was the year before. And if the year was intercalary, and the day of the triumph was the Ides of the intercalary month, it could not be otherwise. U. C. 517 ex Pal. of the Capitoline æra *exeunte* answered to B. C. 235; and B. C. 235, cycle ix. 22 of the regular calendar, would be intercalary. The triumph of Duilius just considered has ascertained this fact, that the 22d year of the cycle was intercalary; and B. C. 235 was the 22d year of the cycle. There must consequently have been a Merkedonius of 27 days B. C. 235 as much as B. C. 259. And if the Ides of the Merkedonius, whether *cavus* or *plenus*, like those of Februarius, fell on the 13th of the month; the Julian date of this triumph, of which the Roman date was the Ides of the Merkedonius, cycle ix. 22, must have been March 12 B. C. 235.

We know of no examples of actual intercalary years in the regular Decemviral calendar, later than this last. We shall now proceed to the application of the argument to the irregular calendar.

SECTION IV.—*On the application of the argument from cases of the Intercalary year to the Irregular Calendar in general.*

The actual number of intercalary years in the irregular Roman calendar must have been many times greater than the sum total of such years as happen to be known from testimony. Yet each of these known years of that description, howsoever small a part of the entire amount of such years it may be in itself, is competent to test and confirm the accuracy of the calendar, in which it appears and in its proper order of time, first for that particular year; secondly for integral periods of the calendar, before and after that year: and even for the decursus of the calendar through all its periods collectively, if both the point from which it set out and the point at which it terminated happen to be otherwise fixed, and to be known to be so.

To explain this. Let it be supposed to be known that the date of the first irregular year in the Roman calendar was the Kalends of January U. C. 547 January 10 B. C. 207; and that the date of the last was the Kalends of January

U. C. 708 October 11 B. C. 47: and, the length of this last year being otherwise known, that the date of the first Julian year in the Roman style was the Kalends of January U. C. 709 December 30 B. C. 46. The absolute number of days and nights in the 162 Roman years, from the Kalends of January U. C. 547 to the Kalends of January U. C. 709, and the absolute number of days and nights in the 162 actual proleptic Julian years, from Jan. 10 B. C. 207 to Dec. 30 B. C. 46, under such circumstances must have been exactly the same; and in either case, 59 159 *.

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* The number of days and nights, contained in these 162 years of the city, through the seven periods of 24 years, over which they extend, taken from our calendar, stands as follows.

Period i.	8 years	of	356 days	=	2848 days
	3	..	354	=	1062
	7	..	355	=	2485
	2	..	377	=	754
	3	..	378	=	1134
	23 years			=	8283 days.
Period ii.	6 years	of	355 days	=	2130 days
	6	..	378	=	2268
	8	..	377	=	3016
	2	..	356	=	712
	2	..	354	=	708
	24 years			=	8834 days.
Period iii.	6 years	of	377 days	=	2262 days
	2	..	354	=	708
	7	..	378	=	2646
	9	..	355	=	3195
	24 years			=	8811 days.
Period iv.	9 years	of	378 days	=	3402 days
	14	..	355	=	4970
	1	..	377	=	377
	24 years			=	8749 days.
Period v.	4 years	of	377 days	=	1508 days
	10	..	355	=	3550
	6	..	378	=	2268
	3	..	356	=	1068
	1	..	354	=	354
	24 years			=	8748 days.

It is manifest then that to this number of days and nights, which could not in the final result or sum total of all be either more or less than 59 159, an intercalation more, or an intercalation less, in the entire decursus of the 162 Roman years in question, would make a difference of 22 or 23 days, at least; and that these could not be introduced at one point of the entire decursus without entailing the necessity of taking away as many at some other period of the same, if the sum total of days and nights, in the whole of the decursus itself, was still to continue the same. Now either to take away 22 or 23 days or to add 22 or 23 days, under such circumstances, would be found to be absolutely impossible, without involving us in some contradiction or other at last. It is therefore morally certain that our actual scheme of the Irregular Calendar, for the whole of its duration from B. C. 207 to B. C. 45, must comprehend some where or other every intercalation which actually made part of its administration. We say however *some where or other;* for we would not maintain that every intercalation occupies *de facto* the same place in our scheme as it must have done in the actual administration of the calendar: though even that is far from im-

Period vi.	13	years of	378 days	=	4914 days	
	9	..	355	=	3195	
	2	..	377	=	754	
	24 years					8863 days
Period vii.	7	years of	355 days	=	2485 days	
	1	..	378	=	378	
	9	..	354	=	3186	
	1	..	377	=	377	
	1	..	445	=	445	
	19 years				=	6871 days
	162 years				=	59159 days.

In Julian time, the same interval stands as follows.

Jan. 10 B. C. 207 to Jan. 10 B. C. 45

	365 days × 162 =	59 130 days
	40 leap days =	40
		59 170 days
	subtract	− 11
Jan. 10 B. C. 207 to Dec. 30 B. C. 46		59 159 days.

probable. The places of particular intercalations even in our scheme might perhaps be changed; provided the entire number were still retained: and the result of all at last might be the same as before.

It is here however that the evidence of actual intercalary years from testimony *ab extra* is most important; by limiting even this possible liberty of change in the actual details of our scheme. Such years, so ascertained, are of course fixed. No liberty of change can be allowed with respect to them. And these being fixed, and at different periods of time asunder one from another, the details of the intermediate years are fixed also; so far at least that no change can be admissible even in them, which would be inconsistent with these known facts of the same kind in those other instances. In this point of view known cases of intercalary years serve a very important purpose, both in regulating and also in verifying the details of one integral portion of the irregular administration of the calendar after another. And the more arbitrary they were at the time, the more useful they are for this particular purpose; and so much the more striking a proof of the accuracy of our arrangements perpetually. It happens too that they are sufficiently numerous to come in and to serve this purpose, as often as they are required; as the following enumeration of them will shew.

SECTION V.—*Verification of the Irregular Calendar, by examples of Intercalary years.*

i. U. C. 563 Varr. 562 Cap. 560 Polyb.
B. C. 192–191. Cycle i. 18. 377 days.

Quando autem primum interkalatum sit varie refertur . . . . Fulvius . . id egisse Manium consulem dicit ab urbe condita anno quingentesimo sexagesimo secundo, inito mox bello Ætolico[l].

U. C. 562 of the Fasti Capitolini answered to U. C. 563 of the Varr. when Manius Acilius Glabrio and P. Cornelius Scipio Nasica were consuls[m]. And this proves that Fulvius Nobilior here referred to followed the Capitoline not the Varronian reckoning of the æra of the city[n]. In supposing an intercalation for the first time this year absolutely, Fulvius must have been mistaken*. In supposing it the first after a period of intermission, he would be in the right.

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[l] Macrobius, i. 13. 267.

[m] Livy, xxxv. 24.

[n] Cf. supra, p. 45 note.

The Ætolian war actually began in the consular year of Glabrio; as is proved even by the date of his triumph, De Ætoleis Et Rege Antiocho, the next year, U.C. 563 Cap. Pro Consule[o]. But as the date of the consular ingress was still the Ides of March, an intercalation in *his* official year must have been strictly at the end of it; in the Roman February B.C. 191, not in the same month B.C. 192. There was an intercalation indeed in the usual month in each of these years, as our calendar shews; neither of which can be dispensed with; nor either where it stands. The former was properly the first intercalation, after the interruption which had preceded from B.C. 207 to B.C. 192; and it was strictly an event of U.C. 563 of Varr. ex Kal. Jan. U.C. 562 Cap. though still in the consular year of L. Quinctius Flamininus Cn. Domitius Ahenobarbus. And as it immediately preceded the Ætolian war, it must have been that which Fulvius intended; whether Macrobius has rightly represented his account of it or not.

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ii. U.C. 564 Varr. 563 Cap. 561 Polyb.
B.C. 191–190. Cycle i. 19. 378 days.

The solar eclipse recorded in Roman history on the v Idus

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* If Fulvius Nobilior was a contemporary of these times, (as he appears to have been,) he must have been living when the calendar was allowed to become irregular. We do not call in question the fact of the testimony attributed to him, that this year, U.C. 562 of the Cap. Æra, was intercalary; but we very much doubt whether his testimony has been altogether correctly represented by Macrobius: first, in supposing it to have been given to this particular intercalation, as if the first which had ever occurred; secondly, in attributing it to the consul Manius, instead of to the Pontiffs at Rome, who alone had the ordering of these things. This last supposition seems to be confuted by what is next subjoined, as another characteristic of the year, Inito mox bello Ætolico. This war began in the year of Glabrio itself, after the Ides of March U.C. 563; before which he was not yet consul. The intercalation B.C. 192 took place in the Roman Februarius, before the Martius of that same year; at which time Manius was not yet consul, except as Consul designatus.

[o] Cf. Livy, xxxvii. 46–48.

Quinctiles July 11 Roman U. C. 564 of Varro[p], March 14 Julian B. C. 190, is a demonstrative proof that the year had been intercalated. If you reckon from the Kalends of January that year, August 16 B. C. 191, and allow for a Merkedonius of 28 days, Oct. 7—Nov. 4 B. C. 191, the 11 Quinctilis will fall on March 14 B. C. 190; but not otherwise. Nor is it possible to dispense with this Merkedonius B. C. 191–190 by means of any alterations in the details of the calendar from B. C. 207–192, which could be admissible.

iii. U. C. 566 Varr. 565 Cap. U. C. 563 Polyb.
B. C. 189–188. Cycle i. 21. 378 days.

That this year was intercalated is proved by the *date* of the triumph of L. Cornelius Scipio Asiaticus: Triumphavit mense interkalario Pridie Kalendas Martias . . . triumphavit anno fere postquam consulatu abiit[q]. The date as expressed by Livy being Pridie Kalendas Martias; it appears from it that Pridie Kalendas Martias may stand absolutely for the last day of the intercalary month[s]. Scipio's consular year expired on the Ides of March U. C. 565 Varr. Nov. 8 B. C. 190. His triumph bore date Nov. 5 B. C. 189: only four days less than one complete year afterwards. He was at Ephesus, Primo vere[t], B. C. 189. The consuls of the year next to his, U. C. 565 B. C. 190–189, are first mentioned by Livy, xxxvii. 47.

iv. U. C. 585 Varr. 584 Cap. 582 Polyb.
B. C. 170–169. Cycle ii. 16. 377 days.

That this year also was intercalated is proved by the testimony of Livy: Hoc anno interkalatum est. tertio die post Terminalia Kalendæ interkalares fuere[u]. The consuls of the year were A. Hostilius Mancinus A. Atilius Serranus[w]. It is plain that the end of their year is meant[u].

The date of the intercalary month in this instance, Feb. 25 Roman not Feb. 24, was singular. It is probably to be explained by the circumstance that, as things were not going on satisfactorily with the war of Perseus in Macedonia, legati had been sent to that country some time before[u]; who returned late in Februarius, Exacto admodum mense Februario: perhaps between the 23rd and the 25th. An intercalation under such circumstances looks like an afterthought, or a resolution taken in consequence of their return, for political reasons of some kind or other. Februarius however having already had 24 days, the Merkedonius would have only 26: but the year would have 377. Nor could it have had either more or less than 377; standing as it does between two ecliptic years, B. C. 190 and B. C. 168, which do not allow it to be either increased or diminished beyond that amount.

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[p] Livy, xxxvii. 4. Cf. xxxvi. 45: xxxvii. 1.

[q] Ibid. 59. Cf. Polybius, xxvii. 7. §. 17: Eutropius, iv. 2.

[s] See supra, p. 507.

[t] Livy, xxxviii. 3. 12.

[u] xliii. 11.

[w] Cf. 1. 3. 5–9.

v. U. C. 586 Varr. 585 Cap. 583 Polyb.
B. C. 169–168. Cycle ii. 17. 378 days.

The necessity of an intercalation of 23 days this year is proved by the date of the lunar eclipse, iii Nonas Septembres, the same year[x], June 21 Julian B. C. 168. Reckon from the Kalends of January, October 2 B. C. 169, and allow for the Merkedonius of 28 days, Nov. 23—Dec. 21 B. C. 169, and iii Non. Septembres, Sept. 3 Roman, will fall on June 21 B. C. 168. But not otherwise.

vi. U. C. 588 Varr. 587 Cap. 585 Polyb.
B. C. 167–166. Cycle ii. 19. 377 days.

This year too was intercalary. Interkalatum eo anno . . . postridie Terminalia Interkalares fuerunt[y]: i. e. in the usual place in the month of Februarius.

We have the consuls of U. C. 587 Varr. B. C. 168–167, Q. Ælius Pætus M. Junius Pennus, recognized in their proper order of time[z]: and then the election of those of the next year, U. C. 588 B. C. 167–166, M. Claudius Marcellus C. Sulpicius Gallus[y]. Afterwards follows the allusion to the Intercalation; and that proves that it came between the consular comitia and the consular ingress, the Ides of March U. C. 588, Jan. 5 B. C. 166.

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[u] Livy, xliii. 11. [x] xliv. 37. [y] xlv. 44. [z] 16.

vii. U. C. 589 Varr. 588 Cap. 586 Polyb.
B. C. 166–165. Cycle ii. 20. 378 days.

In this year the following entries appear in the Fasti Triumphales.

> *M. Cla*udius Marcellus Cos. Ann. DXXCVII *De* Galleis Contrubeis et Liguribus ... tibusque ... Interk.
>
> *C. Sulpicius Gallus* Cos. Ann. DLXXXVII *De Ligu*ribus Ta . . rneis x. K. Mart.

These consuls, as we have seen[z], were elected A. D. 167. They triumphed therefore at the end of their year, which it seems was intercalary: Marcellus some day in the intercalary month, not later than the Ides, or on some day between the Ides of February and the Kalends of that month; Sulpicius on the 20th of that month, Dec. 26 B. C. 166.

These two cases prove that in the actual administration of the calendar U. C. 588 and U. C. 589 were intercalary in sequence. The second proves that x Kal. Martias used absolutely might stand for the 20th of the Merkedonius[a].

viii. U. C. 671 Varr. 670 Cap. 668 Polyb.
B. C. 84–83. Cycle vi. 6. 378 days.

That this year was intercalated appears from the testimony of Cicero, in his oration Pro Publio Quintio[b]; the proceedings which gave occasion to that oration having taken their rise in this year, the consular year of Scipio and Norbanus[c]. The ii Kalendas Februarias, or Pridie Kalendas Februarias, in this year is mentioned by name in the speech[d]; and the Nones of February[e]; and the v Kalendas Interkalares, and Pridie Kalendas Interkalares also[f]. Nor would it be difficult to shew that the Merkedonius that year must have been inserted in the usual place, and must have had 28 days.

ix. U. C. 702 Varr. 701 Cap. 699 Polyb.
B. C. 53–52. Cycle vii. 13. 377 days.

That this year too was intercalary appears from the commentary of Asconius on the oration Pro Milone[g]: Hæc agebantur mense interkalari, post diem trigesimum fere quam erat Clodius occisus. And again[h]: Et cum tractata ea res esset in senatu facto in M. Bibuli sententiam S. C. Pompeius ab interrege Ser. Sulpicio v Kal. Martias mense interkalario consul creatus est; statimque consulatum iniit: deinde post diem tertium de legibus novis ferendis retulit.

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[z] Livy, xlv. 44.
[a] See supra, p. 507.
[b] Oratio i^a.
[c] Cf. Cap. 6.
[d] Cap. 6, 24. [e] 18, 57. [f] 25, 76.
[g] Page 144. Cf. Dio, xl. 46–48.

A note of time occurs in the oration itself which fixes the amount of the intercalation: Omitto Etruriæ festos et actos et institutos dies. centesima lux est hæc ab interitu P. Clodii et opinor altera: qua fines imperii Populi Romani sunt ea non solum fama jam de illo sed etiam lætitia peragravit[i]. The date of the oration according to Asconius[k] was vi Idus Apriles, April 8 Roman: Hæc dixit Cn. Pompeio iii consule, ad vi Idus Apriles: and it is easy to see from the notes of time supplied by his own introduction to his commentary[l] that such must have been the case.

The date of the death of Clodius, as it appears both from the oration[m], and from Asconius[n] (who cites the Acta Publica for it), was xiii Kal. Februarias: though Fenestella is said to have dated it a day earlier, xiv Kal. Februarias. It is usual with Cicero, in cases of this kind, to treat a date like this of xiii Kal. as if the xiii days belonged altogether to the preceding month, without including the first day of the next[o]. On this principle he would reckon 13 days to January, after the date of the death of Clodius, xiii Kal. Februarias.

We have then

In Januarius	13	days
In Februarius	23	..
The Merkedonius ..	27	..
In Martius	31	..
In Aprilis	8	..
Total	102	..

The very number at which he reckons it, up to the day of the oration inclusive. In strictness it was only 101; because there were only 12 days in January, even including the day of the death of Clodius: not 13. And that might be the reason why Fenestella dated the death xiv Kal. Febr., not xiii Kal. Februarias; viz. to make out this number of 102 days exactly. But in this case he could not have attended to Cicero's peculiar mode of reckoning. The above calculation however demonstrates that the Merkedonius of this year could have had only 27 days.

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[h] Page 145.

[i] 35, 98. Cf. 22, 60.

[k] Page 140.

[l] Cf. 147, 148. Cf. Dio, xl. 48. 50. 51.

[m] 10, 27. Cf. 17, 45, 46.

[n] Page 141.

[o] Cf. Asconius, 122. In Pisonem; where he too notices this idiom.

There was no year after this down to the Julian correction, which is either said to have been or could have been intercalary, except the year of Confusion as it is called; the last year of the irregular administration of the Calendar itself. We shall conclude this review of intercalary years with a brief notice of the argument from common years also: both in the regular and in the irregular period.

SECTION VI.—*Verification of the scheme of the Calendar, both the Regular and the Irregular, by the testimony of common years.*

i. In the calendar of Numa the seat of the common years was the odd years of the cycle; in that of the Decemvirs it was the even years: at least in the two first ogdoads of each. The discovery of a common year in either, for the first sixteen years of the cycle, is consequently virtually that of two intercalary years: for every common year in the first sixteen years of each stood between two intercalary years. One instance of this kind may be produced, which greatly illustrates the Decemviral correction; and might have been mentioned before, only that we purposely reserved it for the present opportunity.

It appears from both Dionysius[p] and Livy[q] that the first military tribunes were obliged to abdicate, after holding office a very short time. Non tamen pro firmato jam stetit magistratus ejus jus; quia tertio mense quam inierunt augurum decreto perinde ac vitio creati honore abiere[r]—*Μετασχόντες δ' αὐτῆς ἑβδομήκοντα καὶ τρεῖς μόνον ἡμέρας ἀποτίθενται κατὰ τὸν ἀρχαῖον ἐθισμὸν ἑκούσιοι*[s].

The Varronian date of these first tribunes in the æra of the city would answer to B. C. 444. Corrected, as before,

[p] xi. 61, 62. [q] iv. 6, 7. [r] Livy, iv. 7. [s] Dionys. xi. 61, 62.

that would be the same as B. C. 443. Livy dates their appointment U. C. 310[t]: Anno trecentesimo decimo quam urbs Roma condita erat primum tribuni militum pro consulibus magistratum iniere. And that would be B. C. 442 ex Palilibus of his æra. Dionysius dates it Olymp. 84. 3. Diphilus[u]: which also would answer to B. C. 442. But the context of the consular Fasti even in Dionysius, regularly brought down to this time from B. C. 508, fixes the year to Ol. 84. 2. B. C. 443.

It appears from Dionysius also[v] that the next consuls entered office Τῇ διχομηνίδι τοῦ Δεκεμβρίου μηνός: i. e. on the Ides of December: and such, in fact, was the rule of the ingress at this time, as we hope to see hereafter. Now from the Ides of December exclusive to the last day of Februarius inclusive the number of days in every common year in the first sixteen years of the Decemviral cycle (indeed in any common year of that cycle) was 16+29+28=73 in all: the exact length of time for which, as Dionysius told us, these military tribunes were actually in office.

B. C. 443 was the sixth year of the first Decemviral cycle. Consequently it was a common year. The year before it and the year after it were both intercalary. If then these tribunes entered office on the Ides of December in the fifth year of the cycle, according to the rule of the ingress now in force, and abdicated on the last day of Februarius in the sixth year, the case would be just as Livy represents it, that they abdicated Tertio mense; and just as Dionysius represents it too, that they held office 73 days. We think therefore that these coincidences must decide the question whether the true year of their appointment was B. C. 443 or B. C. 442. It is decisive also that the true year of the appointment in the cycle of the calendar was common. Consequently that B. C. 443 was common; and therefore that the sixth year of the cycle was common.

ii. There is one undoubted instance of a common year in the irregular calendar, which may be collected from Livy, where he is speaking of the different dates which had been assigned to the death of Scipio Africanus the elder[w]: Scipionem et Polybius et Rutilius hoc anno (B.C. 184—183 U.C. 571 Varr.) mortuum scribunt. ego neque his neque Valerio[x] adsentior. his quod censoribus M. Porcio L. Valerio[y] principem senatus ipsum L. Valerium censorem lectum invenio, quum superioribus tribus lustris Africanus fuisset: quo vivo nisi ut ille senatu moveretur (quam notam nemo memoriæ prodidit) alius princeps in locum ejus lectus non esset. Antiatem auctorem refellit tribunus plebis M. Nævius, adversus quem oratio inscripta P. Africani est[z]. hic Nævius in magistratuum libris est tribunus plebis P. Claudio L. Porcio consulibus (U.C. 570 Varr. B.C. 185—184): sed iniit tribunatum Ap. Claudio M. Sempronio consulibus (U.C. 569 Varr. B.C. 186—185) ante diem quartum Idus Decembres. inde tres menses ad Idus Martias sunt quibus P. Claudius L. Porcius consulatum inierunt. ita et vixisse in tribunatu Nævii videtur diesque ei dici ab eo potuisse: decessisse autem ante L. Valerii et M. Porcii censuram.

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[t] Livy, iv. 7.

[u] Dionys. xi. 62.

[v] Ibid. 63.

[w] xxxix. 52.

This calculation makes three months only from the Ides of December U.C. 569 to the Ides of March U.C. 570. Consequently, if Livy was speaking from authority, the year which began on the Kalends of January U.C. 570 September 14 B.C. 185 was not intercalary.

iii. Again it may be probably inferred from the actions of Cicero in Verrem[a] that B.C. 70, the year in which they were delivered, or are supposed to have been so, was not intercalary. The date of these actions was Nonis Sextilibus[b], in the year before the consulship of Q. Hortensius (U.C. 685)[c]: i.e. B.C. 70. Speaking of the act of Verres by which he contrived to strike 45 days at once out of the calendar of Cephaledum in Sicily, he explains the nature of this proceeding to the judges as follows[d]: Hoc modo, ut quo die verbi caussa esse oporteret Idus Januarias eo die Kalendas Martias proscriberet. It is true this is no necessary proof that the year which began on the Kalends of Januarius U.C. 684, March 2 B.C. 70, had been common; yet it renders it extremely probable that it had been so, and was well remembered to have been so: the month of Februarius having long been passed when the first of these actions was delivered. In our scheme of this period, B. C. 71 and B. C. 69 are both intercalary; but B. C. 70 is common. In this case too Februarius must have had 28 days; otherwise there could not have been 45 days exactly from the Ides of Januarius exclusive to the Kalends of Martius inclusive: and the year must have had 355 days.

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[x] Cf. xxxviii. 50. 55.

[y] Cf. xxxix. 42. 33. B.C. 184.

[z] Cf. xxxviii. 56.

[a] Oratio vii. Actio iii. 52, 129.

[b] In Verrem, Actio i. 10, 31.

[c] Cf. Ibid. 6, 17: 7, 18: Brutus 92, 319.

[d] Ibid. iii. 52, 129.

iv. Lastly, it has been shewn[e] generally that all the years in the calendar from B. C. 52 to B. C. 46, but the first and the last of the number, must have been common years; each of them containing 354 days only. This may be further demonstrated of B. C. 52—50 by the help of two dates which occur in Cicero's letters; each of them referred to that of the death of Clodius, xiii Kalendas Februarias B. C. 52. i. Ephesum venimus a. d. xi Kalendas Sextiles sexagesimo et quingentesimo (die) post pugnam Bovillam[f], i. e. the death of Clodius. The date of his arrival in his province being thus assigned, xi Kal. Sextiles, B. C. 51; let us calculate the interval in days from the date of the death of Clodius to the latter, according to Cicero's mode of reckoning in such cases, adverted to supra[g].

From xiii Kal. Februarias B. C. 52 To xiii Kal. Februarias B. C. 51, we have	377	days
B. C. 51 in Januarius, we have ..	13	..
In Februarius	27	..
In Martius	31	..
In Aprilis	29	..
In Maius	31	..
In Junius	29	..
In Quinctilis	22	..
	559	

Only one day less than the number specified by himself 560; in other words the 560th.

ii. Post Leuctricam pugnam die septingentesimo sexagesimo quinto[h]. No date is distinctly mentioned in this letter, from which we might collect for certain on what day it was written. At the beginning however it is said; Accepi tuas litteras a. d. quintum Terminalia (that is, February 19 Roman) Laodiceæ ... his igitur respondebo. The year was undoubtedly B. C. 50; and the day was probably February 20 Roman. The pugna Leuctrica here too is the death of Clodius. The calculation then will stand as follows:

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[e] Supra p. 487.

[f] Ad Atticum, v. 13.

[g] Page 517.

[h] Ad Atticum, vi. 1. at the end.

From xiii Kal. Februarias B. C. 52 To xiii Kal. Februarias B. C. 51 ..	377 days
From xiii Kal. Februarias B. C. 51 To xiii Kal. Februarias B. C. 50 ..	354 ..
B. C. 50 in Januarius	13 ..
In Februarius	20 ..
	764 days.

That is, the very day specified from the death of Clodius; the 765th.

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